

**CITY OF CINCINNATI  
DEPARTMENT OF TRANSPORTATION & ENGINEERING  
DIVISION OF ENGINEERING**

**STREET RESTORATION BOOK**



**RULES AND REGULATIONS FOR WORK IN CITY STREETS, ALLEYS,  
SIDEWALKS, AND PUBLIC WAYS OF THE CITY OF CINCINNATI,  
AND THE MANNER IN WHICH THE PAVING AND  
FACILITIES ARE TO BE RESTORED.**

**CINCINNATI MUNICIPAL CODE  
CHAPTER 721, 723**

**JANUARY 1, 1994**

The following Rules and Regulations have been prepared by the Director of DOTE (Department of Transportation & Engineering) and approved by the City Manager, as required under Section 721-35 of the Cincinnati Municipal Code.

# 1

## AUTHORIZATION

In case of any dispute as to the interpretation of any or all of these Rules and Regulations, the decision of the City Manager shall be final.

In performing work under these Rules and Regulations, the Permittee is fully responsible for making his operations conform to all applicable statutes, rules, and/or regulations of the City of Cincinnati and the State of Ohio.

Wherever these Rules and Regulations refer to "Director", it shall mean the Director of DOTE, or his representative. Wherever the term "utility" is used, it shall mean the owner and/or operator of any facility or system, which requires the opening of surfaces in the rights-of-way in order to build or maintain.

These Rules and Regulations shall be made a part of the specifications for any and all projects, under the jurisdiction of any City Department, in which work is in a public street, the opening of the surface and/or the tunneling of a public way is involved. They shall also be embodied in the proposal for submitting bids on contracts, and, in the formal contract, the Contractor shall be required to perform all work covered by these Rules and Regulations in strict accordance therewith.

All specifications of work shall be defined by the referral to the State of Ohio, Department of Transportation Construction and Material Specifications, and/or the City of Cincinnati Supplement thereto.

The Permittee agrees that when performing any work under this permit, he shall be bound by the requirements of Section 107, "Legal Relations and Responsibility to Public", as outlined in the State of Ohio, Department of Transportation Construction and Material Specifications.

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## APPLICATIONS AND PERMITS

### I. General Conditions for Issuing Permits

Street Opening Permits are issued by the Director in pursuant of written application filed in the office of the City Engineer. Applications and permits shall be on forms provided by the City. (Sample copies are shown in the "Drawing Section" of this book.)

"Street" shall mean every public way set apart for travel, by whatever word designated, including the area from property line to property line which may include a roadway, sidewalk, curb, grassy area, utilities facilities, all or any combination of the above.

A street opening shall be considered an excavation in a street or work in a City street that may cause damage to a street pavement or surface or any work in the opinion of the City Engineer that will place the City street in jeopardy

Permits are issued to be valid for enough time to perform the specified work and to make permanent restorations to the street and public facilities that have been disturbed. However, facility maintenance street opening permits cannot be issued for any time period exceeding 30 days; unless the 30 day time period extends into the winter season (defined as December 15 through March 15). When this occurs, the time period shown on the permit will allow for 30 days, excluding the winter season. Shorter permit periods will be required under special circumstances and/or at critical locations as determined by the Director.

The application shall give the location and dimensions of the proposed opening, the purpose for which the opening is to be made, the kind of pavement or surface to be opened, and the date that the opening was or will be made and the duration of work. If the work, including all street restoration, is not completed within the time shown on the permit, the city or its agent will complete the restoration, and the Permittee will be responsible for the cost of restoration at the rates published in the Schedule of Charges active at the time of the restoration. Before the work can then proceed, a new permit must be secured under the same procedure as required in starting a new job. In the event an extension of time is required for permit performance, a written request shall be made to the City Engineer, with reasons for the delay, prior to the expiration of the permit.

In general, a Maintenance Permit for underground facilities will not require a plan providing the repair is being made in place. The City Engineer can elect to require a plan if there are uncertainties in the work.

The issuance of a New Construction permit will be based on approved plans. Work deviations from an approved plan shall not be performed until an approval of the change has been secured from the City Engineer. The example of a typical plan and cross section, which, under normal conditions, supplies information required to obtain approval, is in the "Drawing Section" of this book.

The application form, in duplicate, with a minimum of seven (7) prints, shall be submitted to the City Permit Office in the Engineering Division, City Hall. However, on State highways or rights-of-way in which the State of Ohio is involved, a minimum of fifteen (15) prints shall be submitted in the same manner as outlined above, with the applications being processed by the City.

Plans accompanying utility permit applications for installations being made in conjunction with a City or State improvement shall be submitted on copies or sepias of the construction contract plans. The use of right of way plans is *not* acceptable.

A request for preliminary approval of a location for proposed facilities shall be made in writing to the City Engineer and include four (4) prints of a drawing of the proposed installation with details.

## **II. Fast-Track Maintenance Permits - Specific Requirements**

A. Fast-track maintenance permits are pre-approved permit numbers that allow repair crews to have, in hand, legal permits for repairing facilities in public streets. These permits will be issued for a time period not to exceed fifteen (15) days.

B. In addition to use by City Agencies, fast-track permits may be used by Private companies regulated by the Public Utility Commission of Ohio (PUCO), operating under an agreement with the City, authorized by City Council for the purpose of providing a specific service to the people of the City of Cincinnati and adequate construction and facility maintenance force, locally, to keep pace with facility maintenance needs and public safety, may also use the fast-track permit process.

C. Work to be done under fast-track permits is to be emergency repairs and/or minor routine repairs. Emergency work is defined as work that requires a response within 24 hours of first notification. Minor repairs may be made if final restoration does not exceed twenty-five (25) square feet. All repair or replacements must be made in place under these permits.

D. DOTE/Engineering will issue a pre-approved block of permit numbers to each **Utility Agency**. The permit numbers are to be used in sequential order. No agency will be issued more than one (1) block of permit numbers at a time with the total number per set to be determined by DOTE. No agency will be permitted to have more than two (2) active blocks of permit numbers open at any given time. A third block of numbers will not be issued until the agency has used all of the numbers in the first block. Standard street opening permit applications shall be used with the identifying pre-issued permit number clearly placed in the space provided in the upper right corner of the application. Customized fast-track permit applications may be used with the approval of the City Engineer. Each utility agency must designate a person or office responsible for the security and issuance of pre-approved fast-track permit numbers. The participating utility companies are required to promptly remit payment of all charges billed within thirty (30) days of receiving the invoice. Failure to promptly pay bills will require a utility agency to have a positive account balance before additional permits will be issued. The fast-track permit system is a privilege and its abuse can result in loss of that privilege

### **III. New Construction Permits - Specific Requirements**

A. The scale of the drawing should be such that the location, extent, and type of work can be readily determined and should be no smaller than thirty (30) feet to the inch, although it preferably should be twenty (20) feet to the inch.

B. Typical sections should be drawn to a scale no smaller than 1" = 10' horizontally and vertically. Profiles should be drawn to the same horizontal scale as the plan, with the vertical scale no smaller than 1" = 20'.

C. If small dimensioned clearances are involved, enlarged details of these areas will be required when the scale of the drawings prohibits clarity.

D. It is required that all drawings, including necessary details, be shown to scale. Drawings not to scale are unacceptable. The scale of plans, sections, profiles, and details shall be shown on the drawings.

E. Plans shall provide a 4" x 6" space for the City check-list block that will indicate the plans have been reviewed by other City review agencies and the date of this review. To expedite plan review and final approval, it is recommended that the general alignment of the project be reviewed by the Engineering Division, Construction Management Office before a detailed review is made by other departments. Where conflict with other utilities is shown, the applicant shall coordinate their proposed work with the affected utility and indicate on the plan the resolution of the conflict.

F. The plans shall show the complete proposed utility system within the limits of the work and shall be to proper scale. Scale should be of sufficient size to include all pertinent features of the proposed work, including all existing facilities, above and below ground, and street tree size and location within 100 feet of the proposed work. Plans are to be sufficiently dimensioned to show the locations of other adjacent utility lines and structures; to provide the locations of any offsets in the line; and to show the limits of construction. The proposed facility line should be laterally dimensioned from the street curb (produced where necessary) or from the street right-of-way line or other permanent physical feature of uncurbed streets.

G. The proposed work should also be referenced longitudinally to a known central control point, (i.e. nearest street intersection, curb line, street right-of-way intersection point, or other existing permanent physical feature), distances from poles, fire hydrants or street addresses alone are not acceptable. The location of all existing utility facilities shall be shown on the plans as accurately as possible from available records. Where doubt exists as to accuracy or completeness of these, records due to the high density of utility occupancy or if, in the opinion of the City Engineer, a more accurate determination of the location and extent of underground facilities is necessary, sufficient test pits shall be dug to accurately locate existing facilities. Where utility vaults have been approved for sidewalk areas, the plans must show the location of all existing or proposed service branches to the abutting property.

H. A typical cross section of the proposed installation shall be shown on the plans. This shall indicate by dimension, both the horizontal and vertical location, the extent of the installation within the right-of-way, and the positions of other utility lines within twenty-five (25) feet in any direction of the proposed work. The width of the street, sidewalks, sub-sidewalk space, and the street right-of-way shall also be shown. A profile of the proposed installation shall be shown where conflict with or close clearance of other utilities or structures will occur; or when conditions indicate that this information is necessary.

I. In the event of major corrections by a reviewing agency to the original submissions, a print marked as "corrected" shall be returned to the applicant. The applicant, after making the necessary change to the original drawing, shall resubmit the same number of prints that are required for the original submission. The City will then reprocess the application and issue the necessary permits when the required approval has been obtained. Submissions of revised plans shall be marked as "revised", with the date of revision near the drawing title.

# 3

## DESIGN

### REQUIREMENTS

J. The review and approval of plans submitted for permit is based on the accuracy of the information represented on the plan. If the circumstances arise, the City Engineer reserves the right to require any additional work to meet current City standards and policies that are necessary to complete the job.

#### I. GENERAL REQUIREMENTS FOR DESIGN

In the preparation of plans for and in the subsequent construction of utility installations, the applicant is expected to:

A. Place privately owned building service facilities on private property, when possible, as established in Section II, paragraph D, of this Chapter.

B. Design and locate the proposed systems so that they will occupy the minimum amount of street right-of-way. Avoid longitudinal designs that encroach into space for possible future street tree planting on existing streets. Any work within fifteen (15) feet of an existing street tree requires a permit from the Urban Forester and any street trees damaged by an opening in a street, alley, sidewalk or public way, shall be restored in accordance with Chapter 743 of the Cincinnati Municipal Code.

C. Coordinate the proposed installation with any City project to insure that the proposed installations will not hinder future expansion of other utilities and/or City projects.

D. Review all available records prior to locating the proposed utility appurtenance, and, if necessary, make investigative excavations (with the permission of the City Engineer) to avoid conflict with existing utilities. The City will accept no responsibility for any costs or liabilities incurred due to improper locating of existing underground features; or from the utility installation under the permit.

E. Use materials and methods of installation, which have been approved by the City and are in conformity with all Federal, State, and Local ordinances and regulations, pertaining to these installations.

F. Give priority to sewer installations in any street right-of-way because of drainage grade restrictions. No longitudinal facilities will be permitted in the four (4) foot wide space behind the face of the curb, unless specific exception is made by the City Engineer; the four (4) foot area behind the curb being reserved generally for City facilities such as trees, street signage, general street furniture, parking meters, utility poles, and longitudinal street lighting ducts. The four (4) foot area in front shall be reserved to provide clearance requirements for adjacent street drainage facilities and to prevent potential damage to the curb.

G. Avoid meandering lines in all cases. Every effort should be made to insure that the proposed longitudinal installation is parallel to the existing or proposed street. Deeper construction and/or the adjustment of existing utility lines may be necessary to meet this requirement. Between the longitudinal utility and the existing street right-of-way line, service branches or laterals shall be installed normal to the right-of-way line without angles or offsets. Where possible, service branches or laterals shall be designed to have a minimum of five (5) feet horizontal clearance from other utility laterals within the right-of-way limits unless special permission is granted for variance. Lateral branches connected to above ground facilities (i.e. poles, fire hydrants, streetlights, etc.) will be located taking into consideration the minimum clearance requirements for maintenance of both proposed and existing above and below ground facilities.

H. Where possible, design utility installations to provide a minimum of three (3) foot lateral clearance and a twelve (12) inch minimum clearance vertically between proposed installations and any known existing facilities not owned by the applicant facility owner. The minimum outside horizontal clearance to be provided between the proposed utility installation and sanitary, combined or storm sewers shall be as determined by consultation with Metropolitan Sewer District or the Stormwater Management Utility Office, as appropriate. This clearance will vary, depending on sewer depth, soil condition, size of sewer position of appurtenance, etc. In all cases, the roof of the utility vault or chamber shall be a minimum of two (2) feet below the surface grade. Systems that are designed closer than fifteen (15) feet to a street tree may require special construction. Clearances in the Central Business District will be determined by the City Engineer at the time each application is received for view. Space in the CBD is at a premium. In any case, a Tree Permit from the City Urban Forester is required for excavations within fifteen (15) feet of a street tree outside roadway pavements.

I. Support any utility manhole or chamber where the required horizontal and vertical clearance with adjacent sewer lines cannot be obtained with twelve (12) inch circular concrete piers at each corner. The piers shall be constructed to a minimum depth of one (1) foot below the invert of the sewer at that location, or as required by the City Engineer.

J. All underground facilities shall have a minimum of two (2) feet of cover over the top of the proposed underground system; with the exception of privately owned electric. Privately owned electric systems shall be covered with a minimum of three (3) feet of cover. Secondary, 600 volt or less, phase to phase supply service installations shall have a minimum of 2 feet of cover over the system. All electrical conduits shall be encased with at least 3 inches of concrete, 3000 psi or greater. City owned electric will generally be located immediately behind the curb at a depth of eighteen (18) inches. Any unusual clearance problems shall be reviewed by the City Engineer. The City



Engineer reserves the right to require an upgrade of the materials proposed to construct the underground system.

## **II. LOCATION REQUIREMENTS**

A. CABLE TV: Cable TV facilities are generally located on existing pole lines. Where poles do not exist, or where the lines are to be placed underground, a location must be selected that does not conflict with the existing or preassigned locations.

B. BUS STOP SHELTERS: The location of Bus Shelters, because of their size, shall be reviewed with consideration of available sidewalk space. In general, they shall avoid being located over existing or planned facilities and shall not reduce the sidewalk space to a width insufficient for pedestrian traffic. A minimum of four (4) feet in residential areas and eight (8) feet in business districts or as required by ADA.

C. ABOVE GROUND FACILITIES: Utility poles, fire hydrants or any fixed objects must be installed with a minimum clearance of (2) feet from the face of the established curb line. Where possible, locate fixed objects as far away from the traveled roadway as possible. Typically, the four (4) foot area behind the established curb line is reserved for utility poles, fire hydrants, and street furniture in general. Maintain a five (5) foot minimum clearance from driveways or vehicle access areas. When utility poles, fire hydrants, or any fixed objects are installed in a sidewalk, the sidewalk shall be replaced to the nearest construction joint. Installation must be installed in accordance to the American Disabilities Act (ADA).

Permission for the installation, replacement, or maintenance of utility poles shall be authorized by the City Traffic Engineer after an application has been submitted to the permit desk of the DOTE Department, Room 410, City Hall.

D. BENCHMARKS: When City of Cincinnati survey monuments are encountered, arrangements must be made with the City Surveyor to temporarily remove and reinstall any survey monuments encountered with the work. AT NO TIME may a survey monument be destroyed without the authorization of the City Surveyor. Bench Mark Monuments shall not be disturbed until witnessing has been completed by the City Surveyor.

The Permittee shall notify the City Surveyor in writing at least two (2) working days prior to the authorized destruction of any City of Cincinnati Bench Mark. The City Surveyor shall be responsible for all witnessing of any Bench Mark to be disturbed. The Permittee shall be responsible for removal of a destroyed Bench Mark.

The Permittee shall deposit an amount as required by Cincinnati Municipal Code 102-21 for witnessing and replacement of Bench Marks. The Permittee shall note that this amount can substantially increase if witnessing does not occur prior to disturbance.

#### E. STANDARD FACILITY LOCATIONS FOR NEW STREETS

1. General - In new subdivisions and new streets, all proposed underground facilities located within the street shall be installed prior to the placement of the pavement and sidewalks; this includes cross-overs or casing for utilities located outside the street right-of-way on private property.

In the event the underground utilities are not installed prior to the surface pavements, the applicant who is installing the utility shall be held responsible for any damage to the developed improvement due to their installation procedures, and shall be required to repair and/or bond and damaged portions of the new improvement.

2. Location - Generally, water mains are to be laid on the north and east sides of newly constructed streets, and gas mains are to be placed on the south or west side of the streets. The following locations shall be adhered to unless specific permission is granted for variance by the City Engineer.

In newly constructed streets, water mains will be laid 5.25 feet behind the back of the proposed curb to simplify fire hydrant installation. Fire hydrants shall be located, whenever possible, out of the probable path of uncontrolled vehicles, (i.e., inside of curves) and as far behind the face of the curb as practical.

Gas mains shall be permitted in the south and west sidewalk area located 5.00 feet behind the back of existing or proposed curb and shall have a minimum cover of thirty (30) inches over the main and service branches.

Underground electric conduits shall be permitted in the south or west sidewalk area located two (2) feet from the property line at a minimum depth of three (3) feet to top of a three (3) inch concrete encasement.

If underground telephone conduits are to be constructed, they shall occupy a position in the north or east sidewalk area. They shall be located two (2) feet from the property line, at a minimum cover of two (2) feet. Any above ground closures must be placed on private property.

If underground City telecommunication Cable communications or Cable television facilities are to be constructed, they shall occupy a position in the north or east sidewalk area. They shall be located one (1) foot from the property line, at a minimum cover of two (2) feet.

Whenever it is feasible, it is suggested that underground utility systems consider the use of a combined trench for their installations, the location of which shall be approved by the City Engineer.

If for any reason normal clearance requirements cannot be met, the electric, telephone and cable, where necessary, can be required to be installed under the roadway or in a (minimum ten (10) foot wide) easement adjoining the public right-of-way. The details of the easement must be approved by the City Engineer.

### **III. REQUIREMENTS OF TRANSMISSION FACILITIES**

**TRANSMISSION LINES.** Application for utility transmission lines presents somewhat different considerations. Transmission lines are underground utilities that are rarely tapped for service connections and require minimum maintenance. Therefore, it is important that they be located at a depth that will avoid conflict with adjacent service facilities. As a general rule, the depth of these transmission lines will be at least six (6) feet, except in areas where service facilities are not required (i.e., expressway rights of way, parks, cemeteries).

For the purpose of these Rules and Regulations, the following criteria shall be used to determine the facilities classified as transmission lines:

**GAS.** A transmission line shall be defined as a pipeline installed for the purpose of transmitting gas from a source of supply to one or more distribution centers, or one or more large volume customers and which pipeline is rarely tapped for service to abutting property.

When there are two or more mains in a single street or along a common route, one will be considered a transmission line if the other or others supply all service.

**ELECTRIC.** Transmission systems shall include all facilities for transmitting bulk power at voltages of 69,000 volts and higher or any group of ducts or duct bank in excess of nine (9) square feet in cross sectional area and/or exceeding three (3) feet in vertical dimensions

**TELEPHONE.** A transmission facility shall be defined as any group of ducts or duct bank in excess of nine (9) square feet in cross sectional area and/or exceeding three (3) feet in vertical dimensions.

**WATER.** A transmission line shall be defined as any water main in excess of twenty (20) inches in diameter.

When the proposed utility installation exceeds the above limitations, they shall be required to be installed with a minimum of six (6) feet of cover unless specific permission for the variance is granted by the City Engineer.

Although existing transmission lines are generally located under the paved portion of the street, they may be located in the sidewalk space under special conditions. In such cases, street trees should not be planted over the transmission lines unless adequate clearances are maintained as determined by the City Engineer.

#### IV. SPECIAL REQUIREMENTS AND RESTRICTIONS

In addition to the previous requirements on size and location, the following specific requirements and restrictions shall apply in the designated areas and streets:

A. **RESTRICTED STREETS.** After the initial construction or the reconstruction or rehabilitation of existing streets, under the supervision of the City Engineer, the street is restricted for any opening for a period of three (3) years except in special cases as outlined in Section 721.39 of the Cincinnati Municipal Code and amendments thereto.

B. **CONGESTED DISTRICT STREETS.** "**Congested District**" shall mean the area bounded on the north by the north property line of Twelfth Street, on the east by the east property line of Broadway, on the south by the Ohio River, and on the west by the west property line of Central Avenue. Due to numerous basement encroachments, as a general rule, all longitudinal utilities shall be constructed in the roadway within the existing curb lines, reserving the sidewalk space for street trees, lighting, traffic signal circuits, and utility poles, parking meters, sign posts/poles, and other street furniture. Transformer vaults, where permitted in the sidewalk space, shall not encroach within the three (3) feet behind the face of the curb. Where existing conditions make this impossible, special consideration will be given in an attempt to meet these existing conditions.

Due to the general lack of space for all utilities in the Congested District, the City Engineer may require construction of a utility chamber of **tunnel** having a roof top elevation more than six (6) feet below the street surface. Only one entry manhole shaft per chamber may be installed on top of the utility chambers.

Where work is to be carried out and there are special pavement surfaces, street trees or streetscapes, either existing or proposed, the applicant will be required to restore the area in kind, including sidewalks and vault surfaces to match the existing surface.

#### **Congested District,**

As defined in the Cincinnati Municipal Code, Section 501-1-C2, shall mean the area bounded on the north by the north property line of 12<sup>th</sup> Street, on the east by the east property line of Broadway, on the south by the Ohio River, and on the west by the west property line of Central Avenue. The core area within the Central Business District.

#### **Utility Tunnel,**

The size and design of the tunnel shall be made to accommodate compatible facilities owned by other utilities or providers, designed to a depth below all existing underground facilities, incorporate the latest technology in ventilation and atmosphere required to support the needs of the occupying facilities for installation and maintenance operations. Shall meet all applicable federal, state, and local safety design and construction standards for accessible tunnel facilities.

## **Neighborhood Business**

**Districts**, shall mean the recognized business area of a neighborhood.

## **Central Business**

**District**, shall mean the area bounded on the north by the north property line of 12<sup>th</sup> Street, on the east by Interstate 71, Interstate 471, Columbia Parkway, and Bains Street, on the south by the Ohio River, and on the west by Interstate 75.

Where new surface treatments are proposed, the applicant or facility owner will be required to furnish metal frames to enable a developer to finish the chamber surface in the same manner as his proposed abutting sidewalk. This may require vault framing to be so located as to match the layout of the existing sidewalk pattern. The applicant will be required to obtain matching materials, as necessary, and to coordinate their work with the site developers operations.

Vaults constructed in sidewalk space shall be subject to such surface adjustments, as necessary, to comply with grade and use requirements of the adjacent streets and private property.

**C. WORK RESTRICTIONS.** Because of heavy concentration of pedestrians in the Central Business District during declared special events and the Holiday Season, the Director will issue a work restriction for the Central Business District.

All City departments, divisions, independent boards and commissions and Private Utility Companies doing or having work to be done on the streets or sidewalks in the Central Business District, shall be required to complete work prior to the restricted times.

The work restriction shall pertain to the streets and sidewalks of the Central Business District, including Fountain Square, except that of an emergency nature. No permits will be issued for such work during this period, except for work of an emergency nature, or by specific written permission of the City Engineer. Any request for an exception should be submitted to the Construction Management Office of the City Engineer for investigation and recommendation. Any authorization of work will be given following the investigation. Any questions should be referred to the Engineering/Construction Management Office.

Restricted Time for Holiday Season - From the Friday before Thanksgiving to the second Monday after December 25th.

Restricted Time for "Special Events" - Will be determined on case-by-case basis per "special event" schedule

## **V. STREET TREE STANDARDS**

Street trees are to be planted in the center of existing sod areas. **Neighborhood Business Districts**, and the **Central Business District** where streetscape projects are undertaken, may qualify for an exception.

Tree grates in the NBDs will be permitted, provided an appropriate maintenance agreement is executed prior to the installation of grates. Such

agreements shall include the transfer of the responsibility for repair, replacement, expanding the tree opening as necessary and regular maintenance from the City to the maintaining party.

Tree guards in the NBD are not permitted unless specific exception is obtained from the City Engineer.

Any disputes on the location of trees, utilities or street furniture shall be resolved by the Director of DOTE

Street trees are to be planted, so the ultimate diameter, at maturity, of the tree is a minimum of two (2) feet clear of the face of a vertical or rolling curb. Street trees shall not be planted where the sidewalk space is eight (8) feet or less in width. The following standards shall be used as a control in establishing the longitudinal thirty (30) to fifty (50) foot spacing of street trees.

1. The lateral clearance between a tree and the edge of a driveway apron or handicap ramp shall be ten (10) feet.

2. Clearances to street furniture shall be as identified below:

- a. Parking signs - No closer than ten (10) feet in front of or five (5) feet in back.

- b. Regulatory/warning signs - (black on white, black on yellow, white on red) - thirty (30) feet in front or five (5) feet in back.

- c. Traffic Signals - Provide a minimum of one hundred fifty (150) feet of sight distance.

- d. Parking Meters - Street trees are to be planted at the front of parking spaces opposite the front wheel of the parked vehicle. If utility problems preclude this location, the tree should be planted at the rear of the space. Trees to be planted in front of the parking space are to be no closer than four (4) feet to the parking meter.

- e. Utility pullboxes - No closer than five (5) feet.

- f. Sanitary, combination and storm manholes, inlets, main sewers and connections - No closer than five (5) feet.

- g. Fire hydrants - No closer than five (5) feet.

- h. Light poles - No closer than fifteen (15) feet.

i. Utility poles - No closer than twenty (20) feet although a minimum clearance of ten (10) feet is acceptable where smaller trees are planted or other conditions warrant.

3. In order to maintain proper sight distance at intersecting streets, trees shall not be planted closer than fifty (50) feet to the nearest intersecting street (property line).

4. The vertical clearances for tree limbs (See C.M.C 743-53) are eight (8) feet over sidewalks and fourteen (14) feet over paved portion of roadways.

5. Drainage Ditches - No planting permitted in these locations.

6. The planting of trees on streets with street lighting shall be coordinated through City Traffic Engineering to determine species and spacing of the trees so the planting does not adversely affect the illumination of the street lights.

The above standards for the planting of street trees, also apply to the location of new utilities in relation to existing street trees. Any deviation from the above standards shall be approved by the City Engineer.

## **VI. STRUCTURAL REQUIREMENTS – UNDERGROUND UTILITY STRUCTURES AND SURFACE ACCESSED FACILITIES**

### **A. ROADWAY STRUCTURES - OUTSIDE INTERSECTIONS.**

Whenever, in the initial construction or the reconstruction of any underground chamber, vault or manhole, for a public utility, sewer or water line, or similar installation in the public right-of-way, whenever the maximum horizontal outside dimension of the main structure in the critical direction (normal to the center line of the street), is greater than seven (7) feet, the entire structure shall be lowered so that the top of the chamber, vault, or manhole is a minimum of six (6) feet below the surface of the street paving. However, an approved type nosing may be constructed at conduit entry ports to the main structure to keep within size limitations.

Whenever the maximum horizontal outside dimension in the non-critical direction (parallel with the center line of the street) is greater than twelve (12) feet, then the entire structure shall be lowered so that the top surface of the roof slab of such chamber, vault, or manhole is a minimum of six (6) feet below the surface of the street paving.

**B. ROADWAY STRUCTURES - WITHIN INTERSECTIONS.** Any proposed chamber, vault, or manhole to be installed in a street within the

property lines of intersecting streets, and which will have a dimension larger than seven (7) feet in either direction, shall be lowered so that the top surface of such chamber, vault, or manhole is a minimum of six (6) feet below the surface of the street paving. Access to underground chambers which, because of size, must be lowered as specified above, shall be by means of a manhole stack no greater than sixty (60) inches outside diameter.

C. **ROADWAY STRUCTURES - SPECIAL.** The stated maximum permissible outside dimensions of utility structures shall apply, except in those cases when it can be clearly shown that an alternative location cannot be utilized and justification is submitted for the proposed structure space required.

Since oversized structures are considered special cases, approvals of such structures are granted only on a case-by-case basis and are not transferable to other locations or circumstances.

D. **SIDEWALK STRUCTURES.** Structures will be permitted within the sidewalk portion of the right-of-ways only after every effort has been made to place them on the private property they serve. The applicant shall notify prospective customers that the privilege of occupying space beneath a public sidewalk can be granted only by the City. In cases where encroachment within the sidewalk is considered necessary, the applicant shall make a written request to the City Engineer for the allotment of this space. This request shall include a detailed layout of the proposed location and a summary of the reasons for this encroachment. The request will be processed as identified under Chapter 718 of the Cincinnati Municipal Code for Revocable Street Privilege. In no case shall final plans be prepared for the encroachment, until permission has been received from the City Engineer for the use of this space.

When the installation of utility facilities within the sidewalk portion of the right-of-way has been approved by the City Engineer, the installation shall have a maximum outside width of seven (7) feet measured transversely from the building line toward the curb line.

Length of utility facilities shall be in increments of eighteen (18) feet, one increment for each proposed instrument, or a single street vault having a maximum overall length of twenty (20) feet four (4) inches. These units shall be so spaced that existing or proposed service lines to the abutting property will not be affected and such vaults shall not prevent the placement of planned street trees. The length of these vaults shall not extend beyond the property lines of the property they serve.

When special surface operational facilities (i.e., vent gratings) are required, they shall be located to avoid interference with pedestrian traffic. The maximum opening in one direction for the grating shall be three-eighths (3/8) of an inch.



Where underground utility vaults or right-of-way encroachments do not require unusual or special operational facilities and are not to be located wholly or partially within the sidewalk area, the roof slab of such vault or chamber shall be constructed so that the elevation of the top of the slab is not less than two (2) feet below the elevation of the top of the street curb as established by Council Ordinance, which may be checked at the City Engineers Office. If there has been no official grade established, then the top of the roof slab should be constructed two (2) feet below the elevation of the existing curb. If no curb exists at this location in question, a proper elevation shall be agreed upon with the City Engineer.

All facility access lids, valve covers and any other surface access components for underground facilities shall meet the maximum safety requirements for pedestrians, in sidewalks and vehicles in paved areas as identified in Chapter 7, herein.

#### E. REQUIREMENTS FOR THE DESIGN OF STRUCTURAL SLABS AND UTILITY STRUCTURES IN OR UNDER SIDEWALK AND STREETS

This section summarizes the minimum structural design criteria included for use in designing field constructed or pre-manufactured structures with clear spans of twelve (12) feet or less in or under a sidewalk or street in the public right-of-way. Structures with spans greater than twelve (12) feet shall be designed in accordance with the latest edition of the AASHTO Standard Specification for Highway Bridges, hereafter referred to as AASHTO, except that such structures in sidewalks shall be designed to support the wheel loads from an HS 15 vehicle or 250 pounds per square foot, whichever produces the larger moment and/or shear. If heavier wheel loads on a sidewalk structure are anticipated due to commercial activity or for any other reason, such heavier loads shall be used. Please note that in many cases, the design loads determined in accordance with this policy will be larger than has been required for similar circumstances in the past.

##### 1. General Provisions - All Materials

A report from a testing lab or a complete set of calculations certified by a Professional Engineer registered in Ohio must be furnished with any request for approval. The report or calculations must show at least the following:

a. If the structure is in a sidewalk, it shall be designed for either a 250 pound per square foot uniform live load or an 8000 pound concentrated wheel load (no impact required for sidewalk structures), or a pair of 8000 pound wheel loads spaced six (6) feet apart, whichever produces the larger moment and/or shear, plus any applicable vertical or lateral pressure due to soil, water or surcharge. For ultimate strength designs, multiply dead and live loads by an additional 1.3 load factor.

b. If the structure is in a street, it shall be designed for either a 20,800 pound concentrated wheel load (16,000 pound wheel load times 1.3 impact factor), or a pair of 20,800 pound wheel loads spaced 6 feet apart, plus an applicable vertical or lateral pressure. For ultimate strength designs, multiply the 20,800 pound wheel load(s) by an additional 1.67 (live load plus coefficient), then multiply this increased live load and all dead load by the 1.3 load factor.

[Mathematically, the ultimate wheel load is expressed as follows: 1.3 load factor ( $\gamma$ ) x 1.67 live load plus impact coefficient ( $\beta$ ) x 1.3 impact factor x 16,000 pounds = 45,100 pounds; the values for  $\gamma$  and  $\beta$  are taken from AASHTO Table 3.22.1(A).]

c. The tire contact for an 8000 pound wheel load shall be assumed to be 14" x 5.75". Except as noted in Part 2(e) or 3(c), for purposes of designing structures installed at the surface of a sidewalk, a 14" width of cover or lid shall be assumed to be effective in resisting bending and shear stresses due to an 8000 pound wheel load.

d. The tire contact area for a 16,000 pound wheel load shall be assumed to be 20" x 8". Except as noted in part 2(e) or 3(c), for purposes of designing structures installed at the surface of a street, a twenty (20) width of cover or lid shall be assumed to be effective in resisting bending and shear stresses due to a 16,000 pound wheel load.

e. The tire contact area for structures installed below the surface of a sidewalk or street shall be determined in accordance with the latest edition of ASTM C 857, except that values for wheel load width and length shall be as noted in part 1(b) or 1(c) above.

f. The lateral pressure acting on a structure shall be determined in accordance with the latest edition of ASTM C 857, unless a different method of analysis is approved by the City Engineer.

g. Allowable stresses shall be as listed in the latest edition of AASHTO. If no allowable stresses for the material are listed in AASHTO, the applicable standard for determining allowable stresses shall be identified.

h. The calculated or tested instantaneous deflection may not exceed one-half (1/2) inch for any cover slab, lid or roof of any structure subjected to a wheel load, unless the deflection is less than the maximum deflection allowed by AASHTO or the pertinent code or material standard.

i. The calculated or tested difference in elevation between the top of a pre-manufactured utility structure and the sidewalk, due to permanent deformation, settlement or any combination thereof, may not exceed one-quarter (1/4) inch at any point.

j. The smaller dimension of any rectangular opening in the top of any sidewalk shall be such that an object measuring larger than three-eighths (3/8) inch will not pass through the opening. Any round opening in the top of any structure shall not be larger than five-eighths (5/8)-inch diameter.

k. The cover shall have a skid-resistant surface - capable of developing a coefficient of static friction of at least 0.5, which shall be determined by conducting a test based on a current ASTM standard appropriate for the material.

l. In calculating bending moments and shears in beams, no distribution of the concentrated load applied directly above the beam shall be assumed.

m. Concentrated loads need not be placed within two (2) feet of the face of a building.

## 2. Specific Provisions - Concrete

a. The minimum 28-day compressive strength shall be 4000 psi.

b. All reinforcing, except ties and stirrups, shall be Grade 60. Ties and stirrups shall be Grade 40 or Grade 60.

c. All reinforcing shall be epoxy-coated, unless an alternate method of corrosion protection is approved by the City Engineer.

d. Either working stress design or ultimate strength design may be used.

e. When designing reinforced concrete structural slabs, the concentrated load applied to the slab shall be distributed in accordance with the provisions of AASHTO Section 3, Part C.

f. A minimum three and one-half (3-1/2) inch thick sidewalk wearing course with a bond breaker shall be constructed on top of all new structural slabs, which support sidewalks. If a portion of a new structural slab, which supports a sidewalk, is to be replaced the new construction shall be a two-course slab as described in this paragraph, unless otherwise allowed by the City Engineer.

g. All new or replacement structural slabs below grade which function as roofs over spaces which project into the right-of-way, and which support granular or organic fill in addition to or in lieu of a sidewalk, shall be constructed as a two-course slab in accordance with the previous paragraph.

Any non-structural sidewalk constructed fill above such a slab shall be a standard 5" concrete walk.

h. All underground facilities or encroachments in the right-of-way that require sidewalk access doors shall be furnished with a double leaf hinged door made of aluminum or shop-primed (red oxide) steel diamond plate, which shall be capable of withstanding the required design loads for sidewalks. The door system shall meet all pedestrian safety requirements identified herein and the "Rules and Regulations for Construction of Sidewalks and Driveways."

### 3. Specific Provisions - Metals

a. Any steel members, other than non-structural form deck, used to support any portion of the sidewalk area must be protected with materials which afford a fire resistance rating not less than 3 hours when tested, in accordance with ASTM E119 (a specific design from the U.L. Fire Resistance Directory or equivalent listing should be identified). Drawings shall distinguish between structural (composite design) form deck and non-structural form deck.

b. All metal components, other than fireproofed steel, shall be corrosion-resistant.

c. When designing stiffened steel plate covers, an 8000 pound wheel load shall be distributed over a 20" width and a 16,000 pound wheel load shall be distributed over a 24" width. The above widths may be increased by twice the thickness of the wearing surface (if present) on top of the steel plate.

### 4. Specific Provisions - Plastic and Other Materials

a. The material must be examined by a testing laboratory or agency in accordance with the latest editions of the following standards:

- 1) ASTM D756, procedure E (Accelerated Service)
- 2) ASTM D543, Section 7, procedure I (chemical resistance)

b. The material is acceptable if each of the following criteria are satisfied:

- 1) Retention of 75% of the control specimen values for load or deflection.

2) No more than 2% change in weight or any dimension.

3) No more visual cracking, crazing, checking, blistering or surface pitting.

c. If nationally recognized standards other than those listed in part 4(a), have been developed for evaluating the material of a proposed structure, such other standards shall be considered acceptable, subject to the approval of the City Engineer.

#### 5. Specific Provisions - Procedure for conducting Load Test

a. For 16,000 pound wheel loads, the structure shall be tested for a concentrated wheel load no less than  $2.82 \times$  wheel load [derived from part 1(a)]. For 8000 pds wheel loads, the structure shall be tested for a concentrated wheel load not less than  $1.3 \times$  wheel load [derived from wheel load multiplied by 1.3 load factor from part 1(b)].

b. The test load shall be applied to a 1" proof load plate, oriented on top of the structure such that the maximum stresses and deflections are achieved. The area of the proof load plate shall be 7.5" x 18.5" for an 8000 pound wheel load and 10.5" x 26" for a 16,000 pound wheel load.

c. The test load shall be applied to the structure uniformly over a period of 1 minute +/- 15 seconds, held for one minute, then gradually released over a period of 1 minute +/- 15 seconds.

d. Maximum deflection shall be measured prior to load application during the 1-minute holding period and immediately following release of the load.

e. The test load shall be applied and deflections shall be recorded for a minimum of ten (10)-loading cycles.

### **VII. TRAFFIC CONTROL STREET BLOCKAGES**

A drawing shall be included on the submitted plans indicating the method of traffic control anticipated at the work site (i.e. number of lanes to be physically blocked by the operation, location and methods of the work when required, and the locations and types of warning devices to be used) in any case where a traffic control drawing is required, the drawing shall be provided to the City Engineer, with the application or permit, at least 48 hours prior to the start of work.

In general, the requirements for the opening and blocking of a public controlled area are to be as follows:

#### A. MAINTENANCE OF TRAFFIC - GENERAL

The proposed work shall be performed with the least inconvenience to, and the maximum safety of, the traveling public and workers. Any variances from the permitted requirements must be approved in advance, in writing, by the City Engineer. Except as modified below, the requirements for maintaining traffic as indicated in the "Ohio Manual of Uniform Traffic Control Devices for Streets and Highways" (O.M.U.T.C.D) and pertinent items of specification and proposal shall apply. The City of Cincinnati Traffic Safety Handbook may be referred to as a supplement to the "Ohio Manual of Uniform Traffic Control Devices".

In addition to Item 614, "Maintaining Traffic", as set forth in the State of Ohio Department of Transportation Construction and Material Specification, the following notes shall apply to the work carried out within the limits of the project:

1. The contractor will be required to provide, erect, maintain (in proper position, clean, legible, and in good working condition), and remove all lights, signs, barricades, and all other traffic control devices necessary to the maintenance of traffic, which also includes all advance warning signs. All signs shall be reflectorized or illuminated.
2. The standard device for closing any lane to traffic shall be properly weighted, reflectorized, lighted drums thirty-six (36) inches in height, and 18" in width, cylindrical or conical in design with the larger diameter on the bottom, reflectorized and weighted as required by O.M.U.T.C.D. Traffic cones may be used during daylight hours only.
3. Whenever one-way traffic is established, at least two flares shall be used unless otherwise directed by the City Engineer, and all signs, cones, barricades, and other traffic control devices shall be erected by the contractor in accordance with the Ohio Manual. Flaggers shall be equipped according to the standards for flagging traffic contained in the Ohio Manual.

If, in the opinion of the City Engineer, proper provisions and maintenance of traffic or traffic controls are not provided by the contractor, the City Engineer will provide appropriate provisions to maintain safe traffic controls, and the cost of such services will be deducted from any money which may be due the contractor. When a Street Opening Permit is required the permit application shall be accompanied by a plan(s) indicating the method of traffic control anticipated at the installation site (i.e. number of lanes to be physically blocked by the operation, location and methods of trench bridging when

### **Congested District,**

As defined in the Cincinnati Municipal Code, Section 501-1-C2, shall mean the area bounded on the north by the north property line of 12<sup>th</sup> Street, on the east by the east property line of Broadway, on the south by the Ohio River, and on the west by the west property line of Central Avenue. The core area within the Central Business District.

required, and the locations and types of warning devices to be used). In any case where a traffic control drawing is required, this drawing shall be provided to the City Engineer at least 48 hours prior to the start of work.

"Maintenance of Traffic" notes will be written by the Traffic Engineering Division and forwarded to the Engineering Construction Division for enforcement. In general, the requirements for the opening and blocking of a public controlled area are to be as follows:

1. No obstructions to traffic are to be placed in that portion of the highway or sidewalk area where the main directional flow of traffic is concentrated during the hours of 7:00-9:00am and 4:00-6:00pm in the Congested District, or any through highway, as defined in the Traffic Code.

2. Sidewalk blockages, forcing pedestrians to walk in the roadway, are considered to be a closure of the curb lane. Before any permit is issued for any complete closure of a sidewalk or roadway, or portion thereof, the City Traffic Engineer shall be consulted for approval of any closure and recommendation for alternate traffic control.

3. In the **Congested District** no work will be performed during the holiday season or a special event period, or as defined, when necessary, in a memorandum issued by the Director.

4. After a permit has been issued and 24 hours before any work starts in any roadway or sidewalk area or before any change in the work area occurs, the permit holder is required to notify the inspection agency, noted on the permit, and the Traffic Engineer at 352-3745.

"Maintenance of Traffic" notes or drawings and any supplemental notes or drawings added to the submitted plans shall be considered a binding requirement under which the permit is granted and failure to comply with the intent of these requirements shall be considered reason for revocation of the approved Street Opening Permit. Although no permit is required, all applicants and City Departments performing maintenance work that requires lane blockage shall comply with the intent of the above provisions. Once again, no obstructions to traffic are to be placed in that portion of the roadway or sidewalk area where the main directional flow of traffic is concentrated during the hours of 7:00-9:00 am and 4:00-6:00 pm in the Congested District, or any through highway, as defined in the Traffic Code. At all other times, minimum lane blockage may take place with the maximum of safety and consideration, with regard to pedestrian and motor traffic. Failure to follow established traffic safety requirements constitutes a violation of the Street Opening Permit and subjects the Permittee to all sanctions and penalties authorized by this publication and the Cincinnati Municipal Code.

In case of emergency (as defined on page 3) occurring in any area of the Congested District or any through highway, as defined in the Traffic Code, the Permittee shall notify the Highway Maintenance Dispatcher (352-3371) immediately.

When a restoration of a pavement cut is being made in a street where the street must be reopened to traffic, ODOT Item 499.032 Class FS concrete for base or pavement may be used with the approval of the DOTE Inspector.

When a restoration of a pavement cut is being made in a street where the street must be reopened to traffic, ODOT Item 499.032 Class FS concrete for base or pavement may be used with the approval of the DOTE Inspector.

Coordination of all street activities is required for the C.B.D. Notification must be given to the DOTE, Engineering\Construction Management prior to starting any non-emergency, non-destructive maintenance to avoid conflicting schedules with other street facility operators.

Exceptions to any of the above requirements must be approved, in writing, by the City Engineer.

#### B. CONSTRUCTION/BARRICADES FENCES

Construction/Barricade Fences shall be constructed of plywood or wire mesh, painted standard City MALT beige or galvanized wire mesh, framed in wood, at least four (4) feet high and self-supporting. Horizontal wood frame material shall be a minimum of eight (8) inch wide stock. Vertical wood frame material shall be a minimum of four (4) inch wide stock. Wood framing shall be painted to conform to standard O.D.O.T. Traffic Control Barricade Design, six (6) inch wide, alternating orange and white reflective stripes, applied at a forty-five (45) degree angle to the wood framing.

The construction fence shall be securely erected independent of any street roadway, sidewalk or paved surface. If the fence is not to be moved for any reason, it may be securely mounted into the paved area. All construction fences shall be maintained in an undamaged and clean condition so as not to obscure the visual impact of the barricade. No other paint, sign or materials shall be applied to the barricade fence except for approved traffic control aids and one project identification sign, (3.0' by 7.0' maximum size). The project sign is for information only and cannot include any business advertising. All barricade fences shall be returned to their proper design location during all non-working hours.

If pedestrian access is to be maintained adjacent to the project, a temporary construction walkway may be required.



Any area enclosed by a Construction/Barricade Fence shall be the responsibility of the Permittee to return the area to the City to as good or better condition upon the expiration of the permit. A security deposit will be required to ensure against any street damage. Alternate fence designs may be submitted to the City Engineer for review.

### C. TEMPORARY CONSTRUCTION WALKWAYS

In response to concerns regarding pedestrian safety in the vicinity of downtown construction sites, the following are guidelines for the erection and maintenance of covered walkways around construction areas. In addition to sites containing buildings under construction, the term "construction areas" shall include excavations for new building and renovations of existing buildings which involve the lifting, removal or storage of construction materials overhead, or any other site so designated by the City Engineer. While protecting the public is of paramount importance, this policy also serves the needs of architects, engineers and contractors by outlining a standardized construction method. Thus, anyone involved in the development of a downtown project can determine the size and spacing of the structural elements in a covered walkway without having to design each element individually. Any proposed deviation from this specification must be designed by an engineer registered in Ohio and must receive written authorization from the City Engineer.

#### 1. General Requirements For All Construction Walkways

a). Walkways must be constructed to allow unobstructed vision at the intersection of the street property lines.

b) Walkways must have a clear unobstructed width of not less than four (4) feet, or eight (8) feet in the Central Business District.

c) Walkways must be covered and have a clear unobstructed ceiling height of not less than eight (8) feet.

d) Walkway roof structures must be designed for a live load of 250 pounds per square foot.

e) Walkway floor structures are not required unless needed to cross an opening in the sidewalk or street, or as directed by the City Engineer. Otherwise, the sidewalk or street may serve as the floor of the walkway. Any structural floor provided must be designed for a live load of 150 pounds per square foot.

f) Adequate artificial illumination must be provided in all portions of the walkway between sunset and sunrise.

g) All sill plates and posts shall be pressure-preservative treated material. Otherwise, pressure-preservative treated material need not be used unless walkway is to be dismantled and later reconstructed in a different location. However, all fasteners shall be galvanized steel.

h) The side of the walkway facing the construction area shall be completely enclosed with plywood.

## 2. Specific Requirements For All Construction Walkways

a) Walkways shall be constructed using Southern Pine or other species of lumber with the demonstrated equivalent strength characteristics when exposed to weather.

b) Walkways with clear widths of 6'-0" or less shall be constructed in accordance with Figure 1A and 1B.

1. For clear widths of 4'-8" or less, grade of roof plank shall be No. 2 or better.

2. For clear widths greater than 4'-8" up to 5'-3" inclusive, grade of roof plank shall be No. 1 or better.

3. For clear widths greater than 5'-3" up to 6'-0" inclusive, grade of roof plank shall be Dense Industrial 65 Scaffold Plank.

c) Walkways with clear widths greater than 6'-0" up to 8'-0" inclusive, shall be constructed in accordance with Figure 2A and 2B.

d) Plywood siding required by Item 1(G) above shall be of the type and thickness listed in Table 1.

## D. DUMPSTER/CONTAINER AND CONSTRUCTION VEHICLE REQUIREMENTS

Any dumpster/container and construction vehicle operated on a City street must not damage any paved street surfaces. A security deposit will be required for dumpsters and all construction vehicles that are operated with metal tracks or wheels.

All dumpsters placed on City of Cincinnati streets shall be properly identified in the upper right hand corner of each side with the company name, phone number and container number. Dumpsters/Containers placed in roadways or within two (2) feet of a roadway shall have the ends facing traffic applied with alternating orange and white six (6) inch reflective stripes at a forty-five (45) degree angle to the container. The alternate sides shall have an eight (8) inch wide strip horizontally across the center with the same alternating orange and white reflective pattern.

All identifications and reflective striping shall be maintained in an undamaged and clean condition. Dumpster containers shall be structurally sound, without openings allowing material to leak from the container.

The container shall be kept in good condition and not have jagged edges that may cause bodily injury or damage to public or private property. At no time will dust or disposed materials be allowed to interfere with the traveling public. Proper sheeting and/or tarping is required during the disposal of waste in the container or during the transportation of the container to the dump site.

#### **E. DEMOLITION BARRICADE REQUIREMENTS**

The demolition contractor is responsible for protecting all public and adjoining private property from damage. If, in the opinion of the City Engineer, demolition operations may cause damage to public or private property, a permit and security deposit for the value of the property will be required.

The demolition contractor must arrange his operations so they correspond to the requirements of the latest version of the American National Standard Safety Requirements for Demolition (A.N.S.I. A10.6).

F. All requirements identified in this Section are considered minimum requirements. The contractors and Permittees are fully responsible for the safety of the traveling public affected by their work. If during the course of the work, in the opinion of the City Engineer, protection is deemed inadequate, the contractor will be directed to provide additional protection.

Exceptions of these requirements must be approved by the City Engineer.

### **VIII. FACILITY MAINTENANCE REQUIREMENTS**

Each utility facility owner is required to maintain all systems such that they not only function properly, but also that pedestrian or vehicular traffic is not adversely affected by malfunctions or failures of such systems. For example, quick response is expected to any notice received about a piece of street hardware that, in the opinion of the City, requires maintenance or adjustment.

If the Facility Owner does not respond within the time period specified on the notice, the city will make repairs or adjustments and charge the costs to the facility owner as provided by Cincinnati Municipal Code 721-35.

## I. PRECONSTRUCTION NOTIFICATION AND ADDITIONAL INFORMATION

A. A complete copy of the street opening permit **MUST BE KEPT AT THE WORK SITE** and be made available upon the request of any City representative.

Failure to maintain complete permit documents can result in suspension of work until all proper permits or documents are obtained. The contractor is fully responsible for the safety of the work site at all times.

B. After the permit has been issued the applicant is required to do the following:

1. Twenty-four hours before any work starts in any roadway or before any change in the work area occurs, the limits of the proposed excavation will be marked, on the ground, in white paint.

2. After marking the limits of proposed excavation, at least two (2) working days and no more than ten (10) days before commencing excavation, call the Ohio Utilities **Protection Service** at 1-800-362-2764 and provide all the required information.

3. Notify DOTE Inspection at least one (1) working day prior to the commencing of excavation. The phone number is listed on your Permit. Any work done without inspection will be considered defective. All defective work must be replaced. Cancellations must be received before 9:00 a.m. the day of the scheduled work.

C. All the equipment and material necessary to maintain the excavation and complete the work must be available on site, prior to the start of work. Trench plates must be of a size and thickness that will safely span the trench:

- a. 3/4" plate with 12" bearing, up to 2.0' trench width
- b. 1" plate with 18" bearing, up to 5.0' trench width
- c. Special permission for trenches in excess of 5.0' in width

Trench plates must be wedged and securely mounted to the pavement so they do not bounce, move, or make any noise. The inspector may reject equipment, material or trench plates at any time, if the inspector determines they are unsafe. If the Permittee is unable to leave a work site in a safe condition, the City may correct the unsafe condition, at the Permittee's expense.

## 4

## CONSTRUCTION REQUIREMENTS

## CALL BEFORE YOU DIG

**Protection Service** means a notification center, but not an owner of an individual utility, that exists for the purpose of receiving notice from persons that prepare plans and specifications for or that engage in excavation work that distributes this information to its members and participants, and that is registered with the Secretary of State and Public Utilities Commission of Ohio.



**1-800-362-2764**

**CALL  
BEFORE  
YOU  
DIG**

D. In the event of an emergency, the Permittee must notify Police Division (352-3920), Fire Division (241-6700), and the Highway Maintenance Division Dispatcher (352-3371).

## **II. INSPECTION**

Inspectors from various Departments may be assigned or involved in work performed within the City right-of-way.

A. The Engineering Division, provides DOTE Inspectors that are responsible for the field administration of all Street construction and maintenance, including but not limited to, the enforcement of traffic maintenance requirements, facility installation, backfill, temporary restoration and subsequent permanent restoration of the affected City street right-of-way.

The Engineering Division reserves the right to inspect all materials incorporated into city streets, including the facilities that supply and manufacture the materials, at the Permittee's cost.

B. The Metropolitan Sewer or Water Works Department Inspector administers the work of sewer or water main installation. Upon completion of the entire trench with backfill up to the pavement base and at least twenty-four (24) hours prior to base restoration, the Metropolitan Sewer or Water Works Inspector will notify the DOTE Inspection Office at the phone number listed on the permit. Work then proceeds under the direction of the DOTE Inspector assigned to the work.

C. The Park Board Urban Forestry Section (352-3787) provides Arborists to inspect tree-related work. Urban Forestry will notify DOTE Construction Inspection Office for final inspection of the tree planting sites.

## **III. METHODS**

A. **TRENCHING.** All excavations for utility installations within the public right-of-way shall be made in accordance with the applicable provisions of Items 603 and 1101 of the current issue of the City of Cincinnati Supplement to the State of Ohio, Department of Transportation Construction and Material Specifications and in accordance with Chapter 17, Sub Parts 1926.651, 1926.652, 1926.453. of the O.S.H.A. Safety and Health.

No tunnels or borings shall be made without written permission from the City Engineer.

Any excavation located under or near railroad right-of-way is subject to the provisions of Section 1101.051 of the City of Cincinnati Supplement to the State of Ohio, Department of Transportation Construction and Material Specifications.

On any work location where excavation, use of heavy equipment, stacking or unloading materials on City right-of-way surface may cause street damages, the City will require the Contractor to deposit sufficient monies to guarantee the cost of restoration of damaged areas or possible future damage to right-of-way surfaces.

B. BACKFILLING. Material for backfilling shall be granular material as defined by item 703.11 of the City Supplement, "low strength" backfill (100 PSI max) or other approved "Nonshrinkable Fill", or as directed by the DOTE Inspector. Backfilling procedures shall meet all specifications of 603.08 of the City of Cincinnati Supplement to the State of Ohio Construction and Material Specifications and shall be compacted to meet minimum compaction requirements, except as specified for low-strength concrete or approved "Nonshrinkable Fill".

Granular material shall be placed in layers not exceeding eight (8) inches when compacted with mechanical tampers or, with a vibratory drum or vibratory platform. Granular material may be compacted with water, if satisfactory drainage is provided for the free water. When compacting with water, the granular material may be deposited in ponded water or it may be placed in layers not to exceed twelve (12) inches loose depth, with each layer thoroughly saturated with water. Compaction testing is required when using granular material as backfill and compacting mechanically. If the Permittee does not have testing services available to him, the DOTE Department can provide the testing services by an independent test lab at the current City cost, and charge the Permittee for reimbursement.

Backfilling with a low-strength concrete mix shall consist of the placement of a flowable mixture of Portland Cement, flyash, and sand in the following proportions: 50 lbs. cement, 250 lbs. Type "F" flyash 2910 lbs. sand, and a maximum of 500 lbs. water. All ingredients shall be in accordance with the applicable O.D.O.T. specifications. This low-strength mortar backfill must be obtained from an approved ready-mix plant and delivery tickets must be made available upon request. A certificate of mix design must be delivered to the inspector, prior to incorporating the backfill mix into the trench. A set of test cylinders must be taken by a City approved testing laboratory from the mix at the site. The Permittee shall be responsible for the cost of the tests. The compression strength results must be sent to the inspector, as soon as they are available, indicating a seven (7), fourteen (14) and twenty-eight (28) day break.

IF THE RESULTS INDICATE COMPRESSIVE STRENGTHS HIGHER THAN THE DESIGN MIX, THE PERMITTEE WILL BE RESPONSIBLE FOR REMOVING AND REPLACING THE BACKFILL WITH ACCEPTABLE BACKFILL AND COMPLETING RESTORATION OF THE STREET.

Non-granular materials shall require the approval of the City Engineer and, if used, shall be placed in layers not to exceed six (6) inches and compacted, as directed by the City Engineer.

All trenches within the public right-of-way shall be backfilled with approved materials to the density specified under Section 203. of the ODOT Specifications.

Whichever material is used, it is to be placed to a level twelve (12) inches below the finished grade and a temporary or appropriate permanent surface provided. If a surface cannot be provided at that time, the cut shall be opened to traffic by means of a suitable steel plate that has been securely anchored, cushioned and ramped with asphalt to prevent slippage and excessive noise.

The City reserves the right to inspect and/or test any or all backfill procedures, and charge the Permittee for the cost of such testing and/or inspection.

C. STANDARD TEMPORARY RESTORATION (By Permittee). After satisfactory backfilling operations are followed, as described in previous paragraphs, the Permittee shall provide a temporary pavement and maintain it until the permanent restoration is completed prior to the permit expiration date. This temporary pavement shall be accomplished by placing ten (10) inches of compacted crushed stone or slag, and two (2) inches of compacted "Hot mix" 404 asphalt. Loose material, including "Cold Mix", which may be scattered over the pavement by traffic, will not be considered proper temporary restoration.

An alternative temporary pavement shall consist of three (3) inches of Class "C" concrete, placed on nine (9) inches of an approved backfill material as described in "B". This concrete may be mixed on the job site and must be placed level with the adjacent pavement.

In the event of any settlement in the temporary surface, the City reserves the right to make the area safe and charge all costs incurred to the Permittee. The City also reserves the right to restore pavements in all cases where they feel proper efforts of maintenance or installation have not been immediately achieved by the Permittee or its agent and charge these costs against the permit.

NOTE: The City will attempt to notify the Permittee before Emergency Maintenance is performed. However, Permittee must provide appropriate emergency contact person(s) and phone number(s).

#### **IV. FINAL RESTORATION**

##### **A. RESTORATION SERVICES PERFORMED BY CITY.**

1. The City of Cincinnati will make complete or partial restoration as needed, or after the expiration of the permit, for all classes of surface at the current scheduled rates.

2. In the restoration of relatively large areas, the Director may order the work charged on a COST PLUS BASIS to include: field labor, material used, supervisors, equipment, fringe benefits, permit and inspection fees, and any other cost incurred in performance of the work.

The Director may allow the work to be performed on estimates based on current street opening permit schedules, or a no-additional billing or no-refund basis. Estimate of costs must be on deposit before City forces will perform the work.

**B. RESTORATION BY PERMITTEE OR CONTRACTOR.** The Permittee or Contractor shall restore any or all disturbed surfaces depending on who has jurisdiction over the work.

Methods and materials used in making the restoration shall match the existing pavement or surface conditions or be replaced as directed by the DOTE Inspector, and shall conform to the State of Ohio, Department of Transportation Construction and Material Specifications and/or City of Cincinnati Supplement to the above. On the request of the Director, a Permittee, making his own restoration, shall furnish to the City a full report of laboratory tests of any and all materials used for restoration. Tests shall be made by a City approved testing laboratory. All samples and testing costs shall be paid by the Permittee.

Concrete Test: One (1) cylinder to be tested at the age of seven (7) days, one (1) cylinder to be tested at twenty-eight (28) days and one (1) spare test cylinder. Material failing to meet specifications may be rejected and shall be removed from the project by the Permittee or Contractor, if so ordered.

**C. GENERAL PREPARATIONS FOR RESTORATIONS.** When permission has been received by the Permittee from the Director to make final restoration in the disturbed areas, the following rules and regulations shall apply:



1. Prior to any other work, all pavement or sidewalk areas, to be removed, have been initially cut with a suitable sawing instrument to neat parallel lines. The pavement has been removed in such a manner to avoid damage to the adjacent pavement. Sidewalks and driveways shall be restored in full block widths only.

2. Where existing pavement is on either side of the area to be restored, the adjacent paving shall be prepared, as shown on the drawing 734-N in the "Drawing Section" of this booklet, prior to the restoration, one (1) foot beyond the undisturbed trench wall.

3. Where the edge of the opened trench is within two (2) feet of the paved gutter line or the longitudinal joint of the roadway, or within two (2) feet of the unpaved berm line, the pavement shall be removed to the back of the integral curb or to the longitudinal joint or the edge of the berm and replaced, as directed by the DOTE Inspector.

Where any part of the opening is within two (2) feet of the paved portion of a roadway having an earth berm without curb and gutter, the disturbed berm area will be restored as directed by the DOTE Inspector.

4. When the edges of the existing pavement have been undermined during the installation operations, undermined pavement shall be removed to a neat line with a suitable sawing instrument one (1) foot beyond the undermined area. Low strength mortar backfill may be used in lieu of the 1.0' cutback if the undermining is less than 12".

5. On longitudinal cuts in finished concrete pavement, the reinforcing mesh shall be replaced as directed by the DOTE Inspector.

NOTE: When finished concrete pavement is resurfaced with asphalt, it is considered asphalt pavement on concrete base.

6. The contractor or Permittee shall be fully responsible for the material placed during all restoration efforts. Weather limitations shall always be considered before placing materials. The DOTE Inspector has the right to reject any material placed not in accordance with ODOT and City Supplement specifications or City-approved industry standards.

7. Proper compaction of the backfilling and base materials must be done to the satisfaction of the Inspector having jurisdiction over the restoration of the pavement.

8. Any opening will be restored, using materials as determined by the DOTE Inspector.

## D. DESCRIPTION OF RESTORATION.

### CLASS 1 - PORTLAND CEMENT CONCRETE

Preparations for areas adjacent to existing concrete pavement that are to be restored shall be made as shown on Drawing No. 734-N in the "Drawing Section" of this booklet. The restoration shall be made in accordance with the applicable portions of Item No. 451 of the State of Ohio, Department of Transportation Construction and Material Specifications and the City of Cincinnati Supplement thereto.

### CLASS 2 - ALL BLOCK PAVED STREETS (Covered or not covered with asphalt topping)

Restoration for this type of pavement shall be as shown on Drawing No. 306-N in the "Drawing Section" of this booklet. Materials used shall be in accordance with the applicable sections of the State of Ohio, Department of Transportation Construction and Material Specifications and the City of Cincinnati Supplement thereto.

### CLASS 3 - ASPHALT PAVEMENT ON CONCRETE BASE (Not covered by CLASS 2)

Preparations for restoration of these pavements shall be in accordance with Drawing No. 900-N in the "Drawing Section" of this booklet. If the original pavement had a concrete base, or if the base which was removed had lost its classification as a flexible base, (i.e., concrete or macadam streets having a machine paved surface, or concrete streets that have been surface-treated) it shall be restored with a Portland cement concrete base in accordance with Item No. 305 of the State of Ohio, Department of Transportation Construction and Material Specifications and the City of Cincinnati Supplement thereto.

### CLASS 4 - ASPHALT PAVEMENT ON STONE BASE

Preparations for restoration of these pavements shall be in accordance with Drawing No. 729 in the "Drawing Section" of this booklet. If, however, the pavement has been reclassified, it will be restored in accordance with Drawing No. 900-N.

If the base to be restored is a bituminous aggregate base, the restoration shall consist of base, as defined by Item No. 301 of the State of Ohio, Department of Transportation Construction and Material Specifications, mixed and placed in a thickness prescribed by the Director, but in no case less than 8" topped with 2" of compacted hot mixed asphaltic concrete surface material (Item 404).

The bituminous aggregate base shall be installed in accordance with the applicable thickness of Item No. 301 of the State of Ohio, Department of Transportation Construction and Material Specifications and the City of Cincinnati Supplement thereto, and as shown on Drawing No. 729 in the "Drawing Section" of this booklet.

#### **CLASS 5 - SUB-STANDARD PAVEMENTS (Plain, macadam, gravel, or cinders)**

This restoration can only be used with special written permission of the City Engineer. After the backfilling has been completed to a point eight (8) inches below finished grade, the remainder of the opening shall be completely filled with four (4) inch courses of broken concrete, broken stone, broken hard vitrified brick or tile, or other approved material. Each course shall be thoroughly compacted by rolling, or vibratory tamping, if rolling is not practical. The roller in this compaction shall be as defined by Item No. 401.11 of the State of Ohio, Department of Transportation Construction and Material Specifications and the City of Cincinnati Supplement thereto.

At least 60% of the broken or fractured material used for such purpose shall be from two (2) to four (4) inches in size. Material exceeding four (4) inches shall be rejected. The surface shall be neatly finished, with clean screenings, and shall conform to the grade of the roadway adjacent to the opening.

#### **CLASS 6 -SIDEWALKS, CONCRETE OR BITUMINOUS CONCRETE, DECORATIVE OR ORNAMENTAL WALK**

For restoration, refer to the Division of Engineering, Sidewalk Section, "Specification, Rules and Regulations Governing the Construction, Repair or Reconstruction of Sidewalks, Driveways, Curbs and Gutters in Streets, Alleys and Public Ways of the City of Cincinnati".

Restoration of decorative or ornamental paving shall be done by a contractor that can provide proof of at least five (5) years of continuous experience in marble, terrazzo and tile construction.

#### **CLASS 6-A - DRIVEWAYS, CONCRETE OR BITUMINOUS CONCRETE, DECORATIVE OR ORNAMENTAL WALK**

For restoration, refer to the Division of Engineering, Sidewalk Section, "Specification, Rules and Regulations Governing the Construction, Repair or Reconstruction of Sidewalks, Driveways, Curbs and Gutters in Streets, Alleys and Public Ways of the City of Cincinnati."

Restoration of decorative or ornamental paving shall be done by a contractor that can provide proof of at least five (5) years of continuous experience in marble, terrazzo, and tile construction.

**CLASS 7 - CONCRETE BASE ONLY OR ANY SIMILAR MATERIAL USED AS A BASE** (In connection with the complete resurfacing of a street by Contractor or City Forces)

This base construction shall be installed as defined for base in CLASS 3. The Contractor or City Forces then will place the leveling and final asphaltic surface.

**CLASS 8 - BITUMINOUS AGGREGATE BASE** (In connection with the complete resurfacing of a street by a contractor or City forces.)

This base construction shall be installed as defined for base in CLASS 4. The Contractor of City forces then will place the leveling and final asphaltic surface.

**CLASS 9 - SOD AND/OR SEEDING**

Sod areas are covered by Item No. 660 of the State of Ohio, Department of Transportation Construction and Material Specifications and the City of Cincinnati Supplement thereto.

When an opening has been made in sod area, not only the actual area disturbed shall be restored, but any adjacent sod area which may have been damaged or destroyed in connection with the work shall also be removed and restored. If the existing sod can be removed without damage and is kept in live and usable condition, it may be relayed, but all damaged sod shall be replaced with new sod.

Restoration of sod by the Permittee shall not be considered completed until all restored sod has knitted with the subgrade, and all necessary maintenance (i.e., watering, etc.) shall be the responsibility of the Permittee and shall be considered a part of restoration.

All sod must be placed over a minimum of three (3) inches of top soil as per Item No. 653 of the State of Ohio, Department of Transportation Construction and Material Specifications and the City of Cincinnati supplement thereto, regardless of the material existing in excavated area after backfilling is completed.

No sod shall be installed when temperature is below 32 Degrees F and no sod shall be placed over frozen soil. The topsoil base shall be held to such grade that when the sod is in place, the top of the sod will be flush with the surrounding grade and in accordance with a typical cross section.

All openings between sections of sod shall be plugged with sod. After laying, the sod shall be sprinkled thoroughly with water and then tamped to bring the sod into close contact with the soil bed and to insure tight joints between the sections or strip.

Upon the completion of the above work, the surface of the sodded areas shall coincide with the finished grade.

Seeding and Mulching - This work shall be performed as defined by Item No. 659.09 of the State of Ohio, Department of Transportation Construction and Material Specifications.

In special cases when seeding is allowed in lieu of sodding, the Permittee will be required to provide seed, fertilizer, mulch, and top soil (Item No. 653 of the State of Ohio, Department of Transportation Construction and Material Specifications) or other material as directed by the Director, depending on the topography of the surrounding area. Prior to placing top soil, all areas to be seeded shall be free of rock and other foreign material three (3) inches or greater in any dimension and shall be in satisfactory shape and finish necessary for the proper restoration of the disturbed area.

The seed shall be thoroughly mixed and then evenly sown over the prepared areas at the rate of three (3) pounds per 1,000 square feet. Seed shall be sown dry or hydraulically. Immediately after sowing, the area shall be raked, dragged, or otherwise treated to cover the seed to a depth of approximately one-fourth (1/4) inch. The operation of seed sowing shall not be performed if the ground is frozen or muddy, or when soil or weather conditions would prevent the proper soil preparation and subsequent operations as specified.

The Contractor or Permittee shall maintain all seeded and mulched areas until final inspection. If, within a period of one (1) year from the date of final acceptance of the permanent seeding restoration, the seeded area fails to grow to a dense level, the Contractor or Permittee shall reseed the area at his own expense. If City forces correct such failure, any expense incurred shall be paid by the Permittee or Contractor.

#### CLASS 10 - STANDARD TEMPORARY RESTORATION

Where standard backfilling restoration has been completed by the Permittee, but a period of time needed before the final restoration or where satisfactory backfill compaction is not obtained, the Permittee or Contractor shall provide a temporary pavement and maintain it until the permanent restoration is made.

This temporary pavement shall be accomplished by placing ten (10) inches of compacted crushed stone or slag, and two (2) inches of compacted "Hot mix" 404 asphalt. Loose material, including "Cold Mix", which may be scattered over the pavement by traffic, will not be considered proper temporary restoration.

An alternative temporary pavement shall consist of three (3) inches of Class "C" concrete, three (3) inches slump one (1) inch, placed on nine (9) inches of an approved backfill material as described in Chapter 4, Section II, subsection B above. This concrete may be mixed on the job site and must be replaced level with the adjacent pavement.

In all cases, when the opening is within a vehicular or pedestrian lane, the Permittee or Contractor shall provide either temporary "Hot mix" asphalt or temporary concrete surface, if permanent restoration is not performed immediately. See Drawing No. 729-A in "Drawing Section" of this book.

#### CLASS 11 - CURBING

Preparations for restoration of curbing, either concrete or asphalt, shall be in accordance with Item No. 609 of the State of Ohio, Department of Transportation Construction and Material Specifications and the City of Cincinnati Supplement thereto.

#### CLASS 12 - ASPHALT SURFACE

Method and materials used shall conform with Items 401.01 to 401.17 of the State of Ohio, Department of Transportation Construction and Material Specifications and the City of Cincinnati Supplement thereto.

#### CLASS 13 - DITCHES (Paved or Unpaved)

Materials used shall be in accordance with the applicable sections of the State of Ohio, Department of Transportation Construction and Material Specifications and the City of Cincinnati Supplement thereto.

#### CLASS 14 - ROAD PLANING

Whenever a longitudinal opening or series of openings destroy the desired riding qualities of the street surface or appearance, the City reserves the right to require Road Planing and Mechanical Resurfacing of the entire pavement within the overall limits of the disturbed area.

If the size of the longitudinal or series of cuts are in a continuous line and do not exceed four (4) feet in width, the Permittee shall be charged for a four (4) foot wide Road Planing and resurfacing times the entire length of the work area.

If the openings are not in a continuous line or exceed four (4) foot width limit, the City shall Road Plane and Mechanical Resurface the cut area and charge the Permittee for a minimum of eight (8) feet times the length of the work area at prevailing asphalt restoration prices.

In cases where a complete resurfacing has been programmed, the Permittee shall be charged only for the actual cut area as measured by the Inspector.

Whenever a Contractor damages, gouges, or mars the asphalt surface of a street while performing an installation or repair, the City may elect to resurface the damaged area and charge the Contractor 75% (see page 43) of the cost for removing and resurfacing the damaged pavement. In cases where DOTE determines the pavement is still in good condition, the Permittee shall pay 100% of the cost for resurfacing.

#### CLASS 15 - JOINT SEALING

Sealing material shall be in accordance with Item No. 702.01 of the State of Ohio, Department of Transportation Construction and Material Specifications and the City of Cincinnati Supplement thereto. Sealing shall be necessary on all CLASS 2, 3, 4, 8, and 12 streets and shall be applied, as directed by the Inspector.

#### CLASS 16 - SEAL COAT

Materials used for this type of surface shall be in accordance with Item No. 409 of the State of Ohio, Department of Transportation Construction and Material Specifications and the City of Cincinnati Supplement thereto.

#### CLASS SPECIAL - STREET FACILITIES

If the Director of DOTE determines that street and/or public facilities may be affected by the work, an estimate of the potential damages to the affected facilities shall be prepared by the City Engineer. The amount of the estimate will become part of the total amount of the guarantee deposited to secure the permit.

### **V. HOUSEKEEPING AND FINAL CLEANUP**

The Contractor or Permittee shall at all times correct any undesirable condition identified by the inspector.

Dust and/or cleanup operations shall be continuously performed at the job location. All excavated material, unless permitted to be reused, shall be removed at the end of the working day. No material shall be placed in such a manner that may cause blockage and/or clogging of surface water drains. All equipment left on site shall be stored in a safe manner.

Upon completion of the project, total cleanup of all areas shall be performed to full satisfaction of the Division in control of the work. All pavement shall be left in a clean condition, either swept or flushed clean. All excavated soils, materials, and equipment shall be removed from the job location.

Approval of the final cleanup shall be as determined by the DOTE Inspector in charge of the permit.

If the inspecting personnel determines that the Final Cleanup is not sufficient in its final condition, the City reserves the right to complete and/or correct such work at the expense of the Permittee.



## FEES AND CHARGES

### I. DEPOSIT OR SECURITY FOR PAYMENT

Proper restoration of City property and/or payment of the cost thereof must be assured in one of the following ways:

A. The Applicant has made a cash deposit equal to the estimated charges for the permit at scheduled prices.

B. The Applicant has opened a running account by making an initial deposit suitable to the City, to be replenished by the Applicant voluntarily or upon request by the City. No permit shall be issued under this provision, unless there is an unencumbered amount in the applicant's account sufficient to cover the estimated charges on permit applied for.

C. The Applicant is operating under a City of Cincinnati contract involving the opening of public ways, in which case he/she may obtain a Street Opening Permit without cash deposit, but all stipulated permit charges shall be paid upon completion of the contract work and prior to payment to the Contractor of the Final Estimate of Costs. In the case of large contracts involving long trenches, the City funding agency shall pay promptly any partial billing of restoration charges. The City reserves the right to withhold any or all restoration charges from any funds due the Contractor.

D. The Applicant is a County, State or Federal Department whose functions require the installation and/or maintenance of underground facilities. In such cases, security deposit is waived provided a previous agreement to guarantee restoration is obtained and the nonrefundable portion of the deposit is made in cash.

E. The Applicant is a corporation whose City granted franchise empowers it to make its own paving restoration, Permits will be issued only when the restoration work keeps pace with the openings being made. Such corporations shall pay promptly all bills for inspection at scheduled rates and all bills for restoration done by City forces.

F. The Applicant has deposited, with the City, cash or an acceptable guarantee in an amount sufficient to cover estimated restoration charges and has made a cash deposit sufficient to cover the cost of inspection, street opening fee and processing fee. Non-cash guarantees are acceptable for payment of the portion of the guarantee when it exceeds \$2,000.00. Such guarantee shall be specifically tied on the permit request.

G. The applicant has a "Street Contractor License", in accordance with Cincinnati Municipal Code 721-83, and pays the nonrefundable portion of the permit in cash.

## **II. INSPECTION**

The fees for the various services performed by the DOTE Department are as outlined in the section identified as the Schedule of Charges. These rates are revised periodically by the City Manager to show the charges that will be made for these services. The latest edition of these rates may be obtained from the Engineering Division Permit Desk, Room 410, City Hall.

Inspection costs for work performed under DOTE Inspection, are estimated and included in the charges at the time the permit is issued. The fee for inspection is estimated based on normal working hours, 7:30 am - 4:00 p.m., Monday through Friday, excluding holidays. Work scheduled outside of normal working hours must be pre-authorized by the City Engineer and will be considered overtime work. Overtime inspection will be reimbursed to the City at the hourly rate of the Inspector at the appropriate rate (time and a half or double time), plus fringes, in addition to the estimated inspection fee for the permit.

If, at any time during the course of the work, it appears that the cash on deposit is inadequate to cover the cost of restoration or inspection, an additional sum shall be deposited by the Permittee in an amount sufficient to cover the new estimated charge. Where the Contractor makes his own restoration, or the operation is of unusual size or difficulty, the City reserves the right to assign a full time DOTE Inspector to oversee the street opening or street restoration. In such cases, the Permittee shall bear the entire cost of such inspection in advance. If the actual workdays are less than estimated, the unused portion of the deposit will be refunded.

In order to estimate the inspection cost for this work, the Permittee or Contractor shall indicate on the permit application the estimated number of construction days involved. When the permit has been approved by the City Engineer, this estimated number of days will be multiplied by the current daily charge to establish the amount of inspection deposit to be paid at the time the permit is issued, or in such increments as permitted by the City Engineer.

Copies of the permit and the approved drawings, as well as any special permissions required, shall be kept at the work site at all times until final restoration and site cleanup is completed.

## **III. RESTRICTED PAVEMENTS**

Any newly constructed pavements or those newly resurfaced under State, County, or City auspices shall be restricted from openings in pavement for a period of 3 years from the date of the final inspection by the City of Cincinnati inspection personnel, as covered by Section 721-39 of the Cincinnati Municipal Code.

Any City street which has a street condition rating of eighty (80%) percent or higher will require special restoration of the pavement and curbs, as determined by the City Engineer. If the restoration of the pavement maintains a good riding profile, a slurry seal of the entire street will be required. If the riding profile will be adversely affected, the two (2) inch wearing surface will be repaved for the entire limits of the work.

In case of an emergency and when special permission is granted by the City Engineer, a permit may be issued for an opening in a restricted pavement. The size of restoration shall be determined by the DOTE Inspector regardless of the size of the opening made by the Permittee or Contractor.

An additional non-refundable charge shall be made on a sliding scale and shall be ten (10%) percent of the regular charge for each remaining month or fraction thereof of the three (3) year restricted period. For example, if the pavement is thirty-one (31) months old when the opening is made, the additional charge will be fifty (50%) percent over the regular charge. If the pavement is nine (9) months old when the opening is made, the additional charge will be two hundred and seventy (270%) percent over the regular charge.

In "Restricted Pavements" restoration to the nearest construction joint will be required for all Portland Cement Concrete pavements, also complete lane resurfacing of asphalt surfaced streets that are rated "Excellent" or "Good" on the most recent Street Inventory Survey.

#### **IV. GUARANTEE**

##### **PERMITTEES RESPONSIBILITY IN RESTORED AREAS**

The Permittee, in accepting and acting under a street opening permit agrees to defend, indemnify, and hold harmless the City and its duly appointed agents and employees from and against any and all claims, suits, liabilities, losses, damage, costs or expenses, including attorneys' fees sustained by reason of the exercise of this permit, whether or not the same may have been caused by the negligence of the Department, its agents or employees. The aforementioned does not apply to any Ohio Municipal corporation.

If any settlement in a restored area occurs within a period of one (1) year from the date of final acceptance of the permanent restoration, it shall be deemed conclusive evidence of defective backfilling. Any expense incurred by the City in correcting such settlement shall be paid by the Permittee.

The drawings and information in this chapter are intended to familiarize the street opening permit applicant to some of the requirements of restoration and provide examples of the possible types of pavements that may be encountered. Various methods of construction were used in the past to construct the streets of Cincinnati and may not be represented in this book.

The types of restoration to be used will be determined by the DOTE Inspector in charge of the permit. Some pavement details may not be exactly represented in this book.

No disputes as to the method and type of restoration determined correct by the DOTE Inspector will be considered.

## **6 FORMS AND STANDARD DRAWING**



**CITY OF CINCINNATI**  
**Department of Transportation & Engineering**  
**Permit and License Center**  
City Hall, Room 410, 801 Plum Street  
Cincinnati, OH 45202-1980  
513-352-3463 Fax: 513-352-5397

**PERMIT APPLICATION**

DATE: \_\_\_\_\_  
PERMIT TYPE: \_\_\_\_\_  
PERMIT NUMBER: \_\_\_\_\_

Applicant: \_\_\_\_\_ Name: \_\_\_\_\_  
Applicant Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
Property Owner: \_\_\_\_\_ Fax: \_\_\_\_\_  
Location of Work: \_\_\_\_\_ Repair Order: \_\_\_\_\_  
Purpose: \_\_\_\_\_  
\_\_\_\_\_

Affected Area: Length: \_\_\_\_\_ Width: \_\_\_\_\_ Other: \_\_\_\_\_

**PAVEMENT**

Roadway: Asph. \_\_\_\_\_ Conc. \_\_\_\_\_ Ornamtl. \_\_\_\_\_  
Sidewalk: \_\_\_\_\_ Conc. \_\_\_\_\_ Ornamtl. \_\_\_\_\_  
Curb: Conc. \_\_\_\_\_ Granite \_\_\_\_\_ Other \_\_\_\_\_  
Street Under Construction: Yes ☐ No ☐

Review Agency	Reviewed By	As Noted	Resubmit	Date

**Special Notes:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

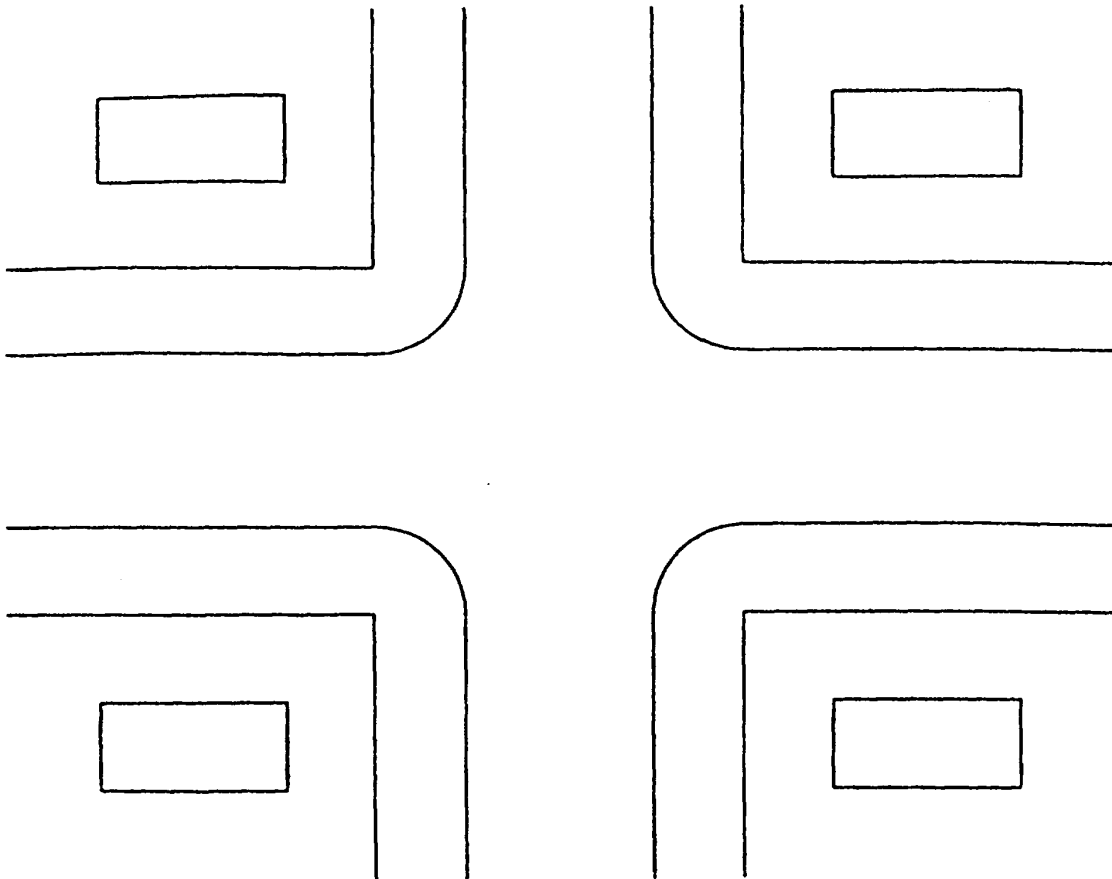
Person Applying for Permit:  
(Print Name) \_\_\_\_\_ Signature: \_\_\_\_\_

☐ Permit Taken Over Telephone by: \_\_\_\_\_

Zoning Plans Examiner	Date	District	Barricade Permit Issued	Number	Permit & Inspection Fee
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Special Instructions/Information


On the drawing below, fill in the street names, addresses, approximate location of proposed work, and as much existing underground utility and above ground surface information that is available. A pre-engineered site plan, if available, is preferred.



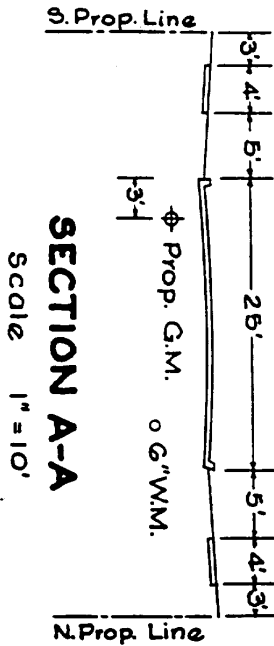
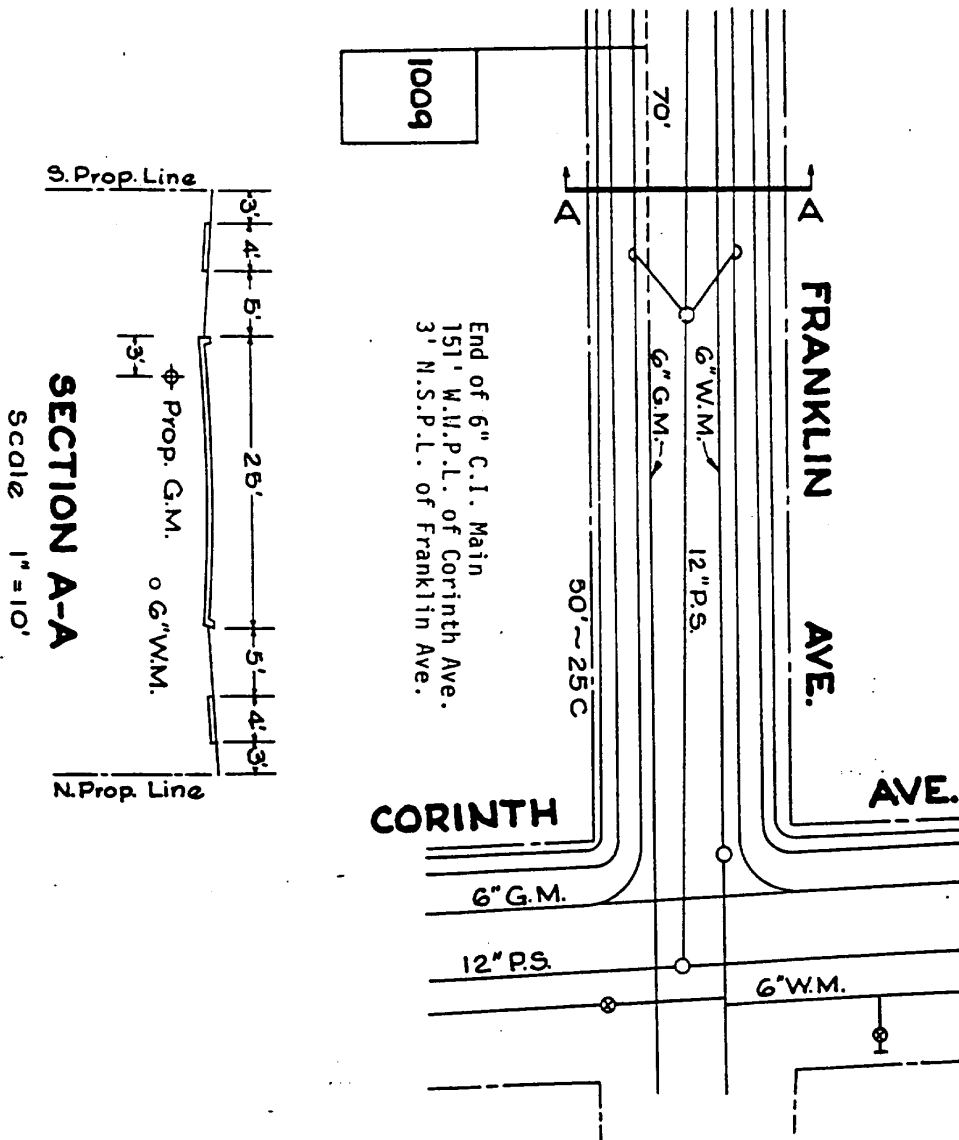
# GAS MAIN EXTENSION

Drawn By: R. James S. S. Franklin Avenue Bond Hill Plat No.  
 Traced By: From 151' W.W.P.L. of Corinth Ave.  
 Checked By: J. Florian to 70' Westwardly  
 Approved By: One House Total Extension 70 Feet 73

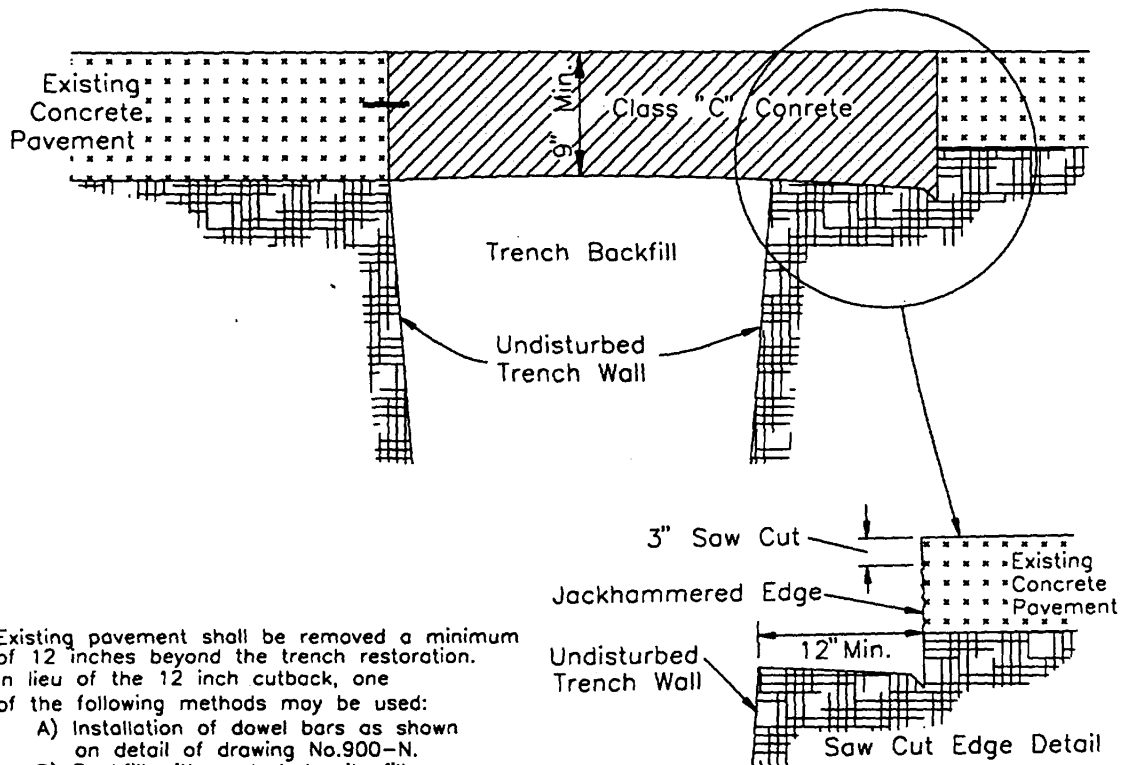
Scale 1" = 50'



Note: This is a sample of the type of plan which should accompany an application for a permit to install or alter underground structures within City streets.



# STANDARD RESTORATION CONCRETE PAVEMENT



Existing pavement shall be removed a minimum of 12 inches beyond the trench restoration. In lieu of the 12 inch cutback, one of the following methods may be used:

- A) Installation of dowel bars as shown on detail of drawing No.900-N.
- B) Backfill with control density fill (non-shrinkable fill - see backfilling requirements for spec.)

Square edge 2 inch cut by use of concrete saw or other approved method.

Break out concrete below sawcut by use of jackhammer or approved pneumatic tool.

Vertical face of existing pavement shall be cleaned by compressed air.

All surfaces shall be wetted prior to placing concrete.

Concrete shall be consolidated with internal type vibrator.

Concrete surface shall be cured as soon after the finishing operation as possible. See item 451.10 O.D.O.T.

Item 702.01 - Edges of restoration shall be sealed with asphalt cement.

The seal shall be a uniform 3 inch wide asphalt cement seal.

CITY OF CINCINNATI  
DEPARTMENT OF PUBLIC WORKS  
DIVISION OF HIGHWAY ENGINEERING

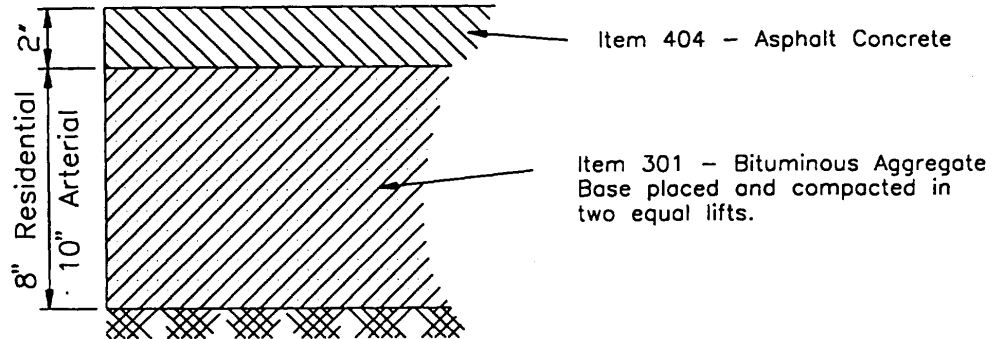
## STANDARD RESTORATION OF OPENINGS

SCALE: NONE SEPTEMBER, 1992

*Thurgood*  
CITY ENGINEER

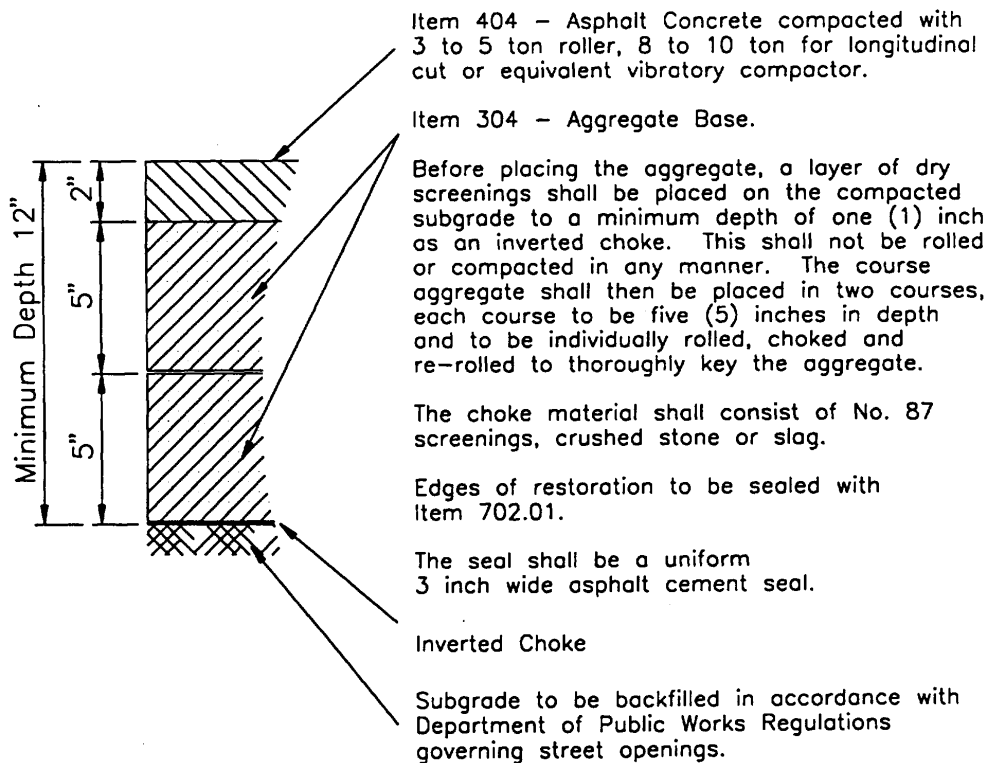


# STANDARD RESTORATION For all Non-rigid Pavements

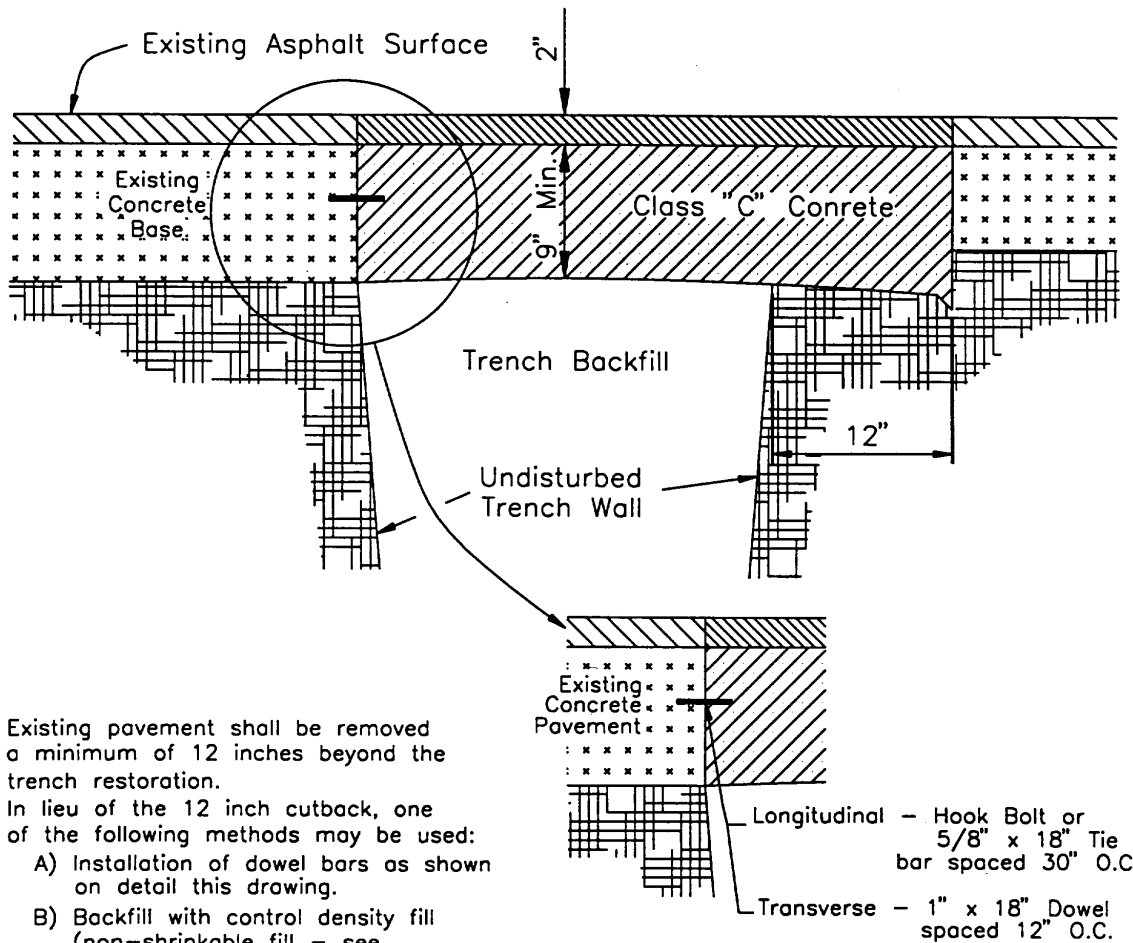


Drawing No. 729-A

## STANDARD TEMPORARY RESTORATION



# STANDARD RESTORATION ASPHALT SURFACE ON CONCRETE BASE



Existing pavement shall be removed a minimum of 12 inches beyond the trench restoration.

In lieu of the 12 inch cutback, one of the following methods may be used:

- A) Installation of dowel bars as shown on detail this drawing.
- B) Backfill with control density fill (non-shrinkable fill - see backfilling requirements of the street opening permit spec's.)

Concrete shall be consolidated with internal type vibrator.

2 inches of Item 404 asphalt shall be compacted with 3 to 5 ton roller, 8 to 10 ton or equivalent vibratory compactor for longitudinal cuts.

Class "FS" concrete may be used when the pavement is required to be open to traffic the same day.

Item 702.01 - Edges of restoration shall be sealed with asphalt cement.

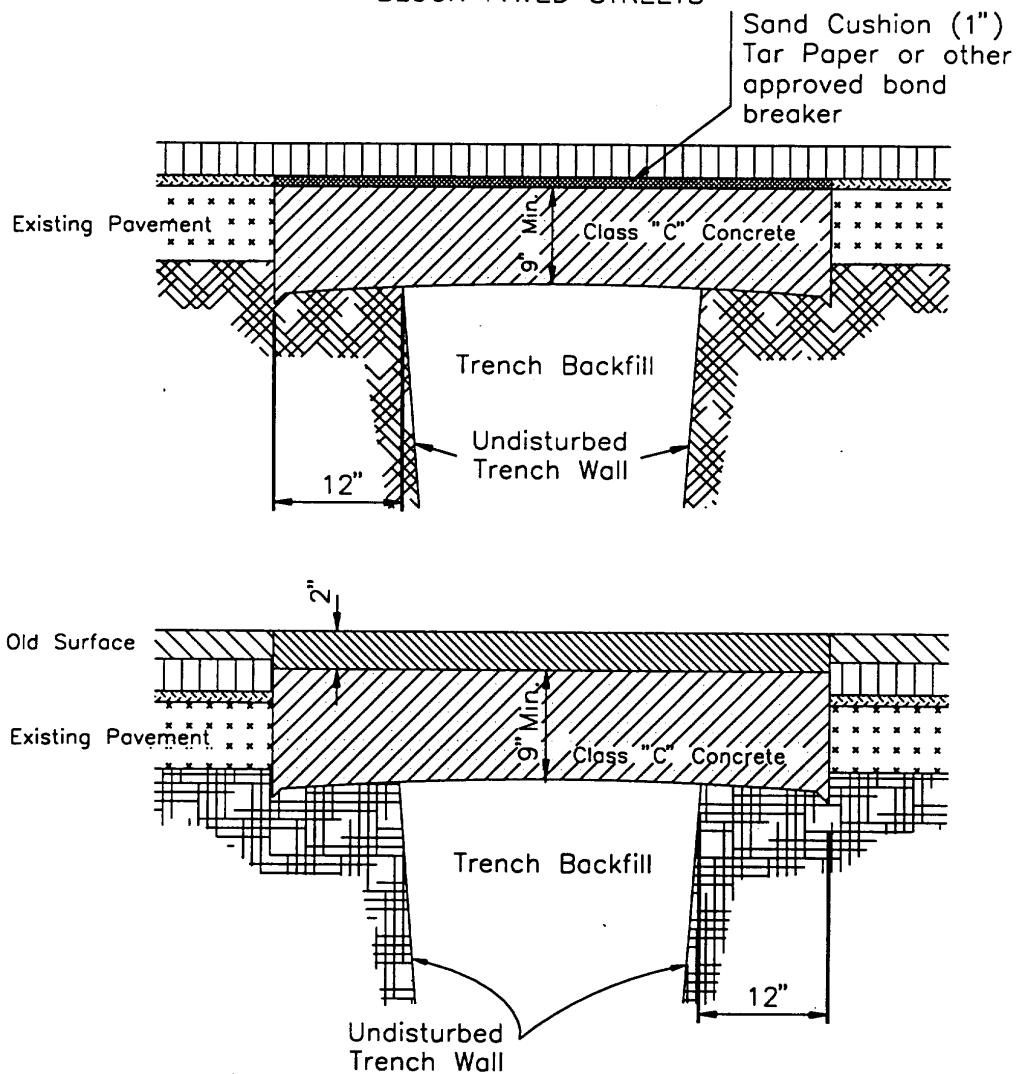
The seal shall be a uniform 3 inch wide asphalt cement seal.

CITY OF CINCINNATI  
DEPARTMENT OF PUBLIC WORKS  
DIVISION OF HIGHWAY ENGINEERING

## STANDARD RESTORATION OF OPENINGS

SCALE: NONE SEPTEMBER, 1992

*T. J. M. J.*  
CITY ENGINEER

STANDARD RESTORATION  
BLOCK PAVED STREETS

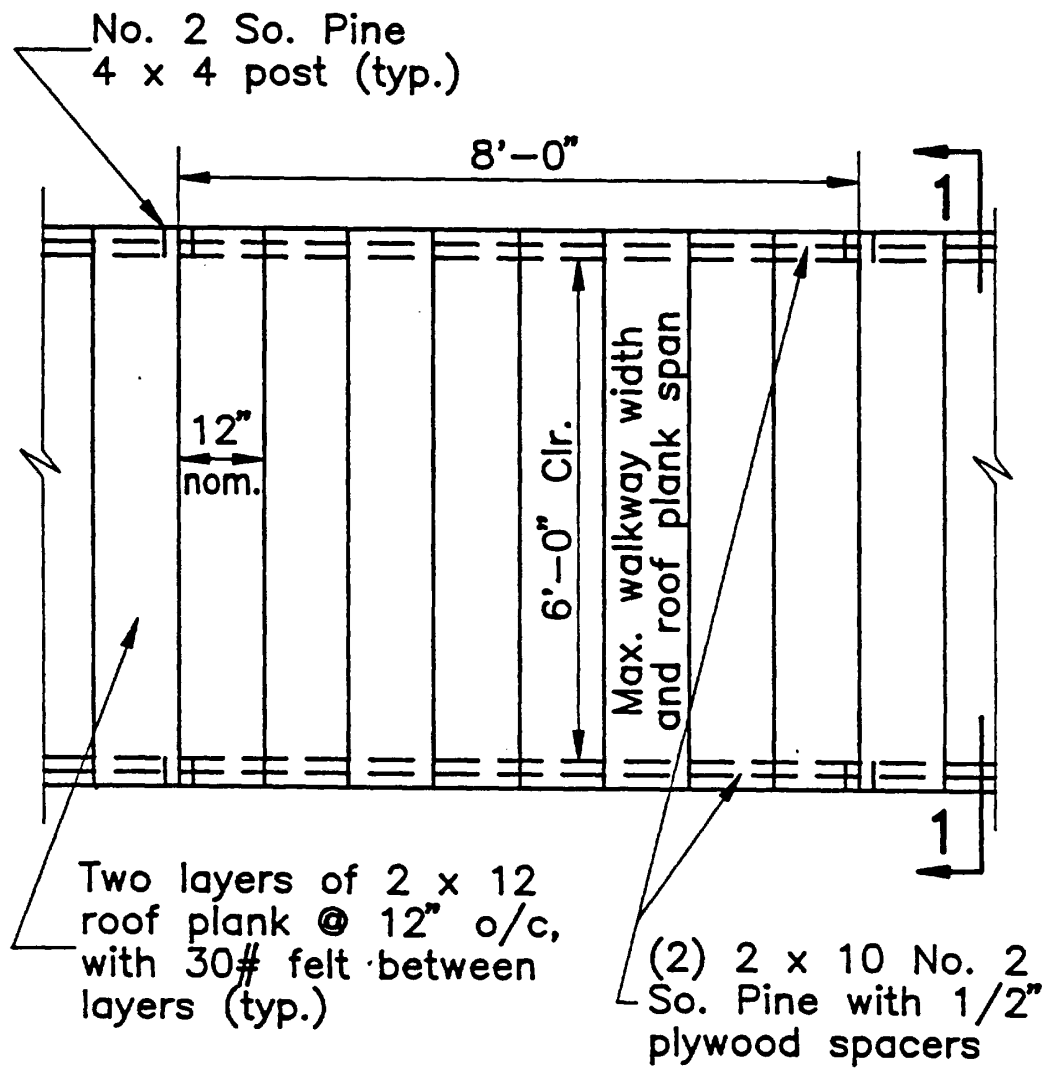
2 inches of Item 404 asphalt shall be compacted with 3 to 5 ton roller, 8 to 10 ton or equivalent vibratory compactor for longitudinal cuts.

Class "C" concrete consolidated with internal type vibrator. Class "FS" concrete when the pavement is required to be open to traffic the same day.

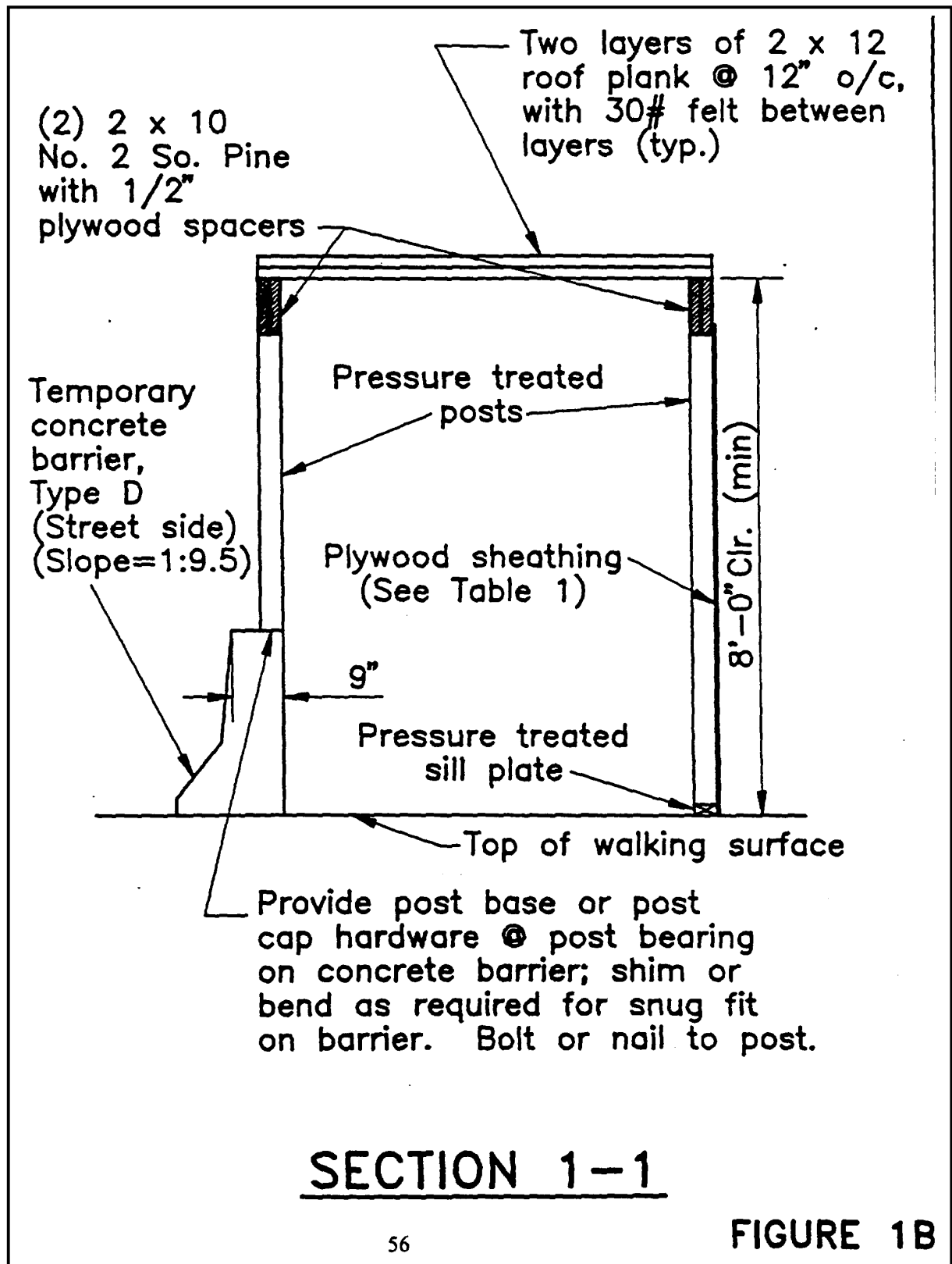
Bond breaker shall be sand cushion (1"), tar paper or approved medium.

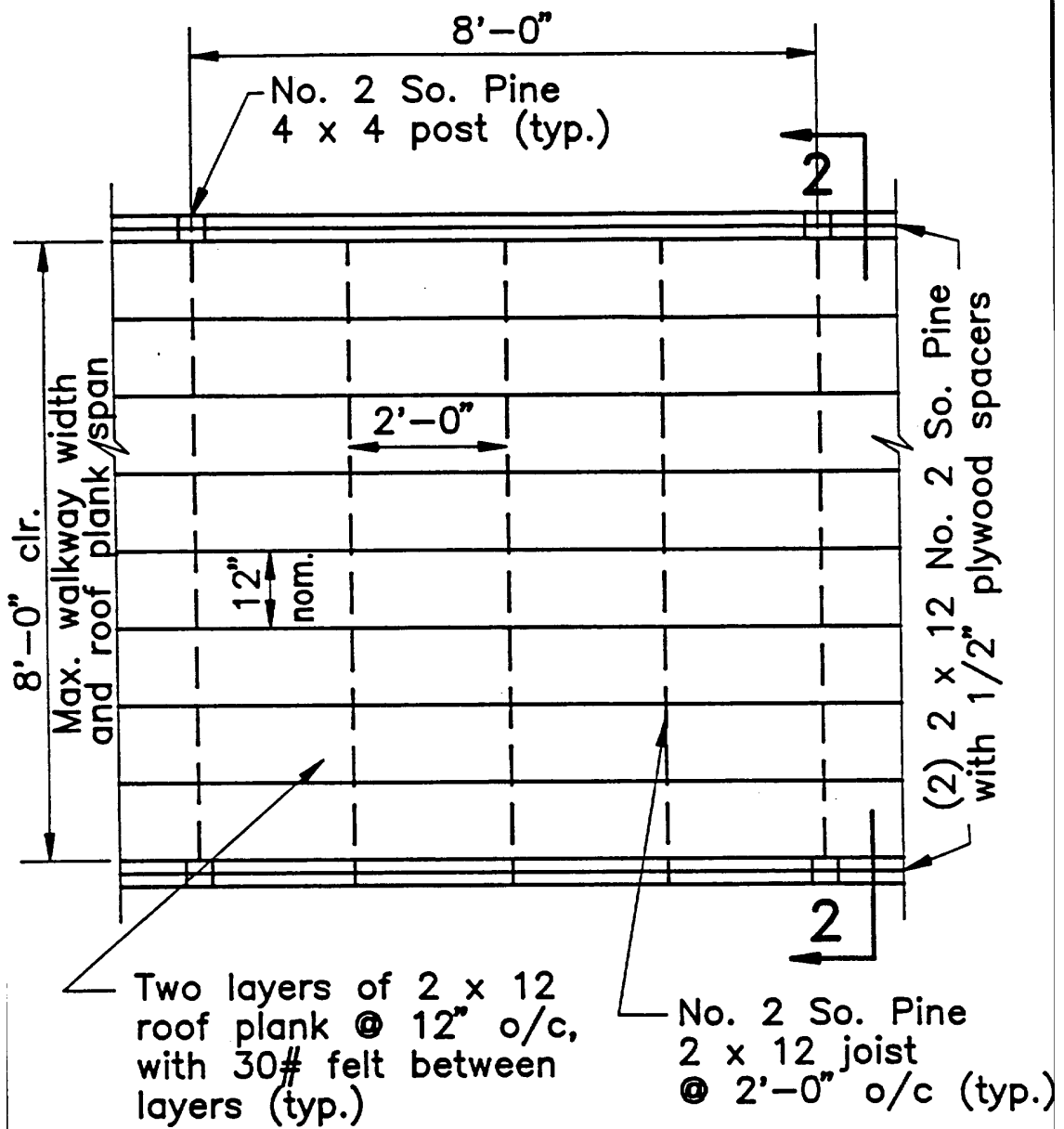
Item 702.01 - Edges of restoration shall be sealed with asphalt cement.

The seal shall be a uniform 3 inch wide asphalt cement seal.

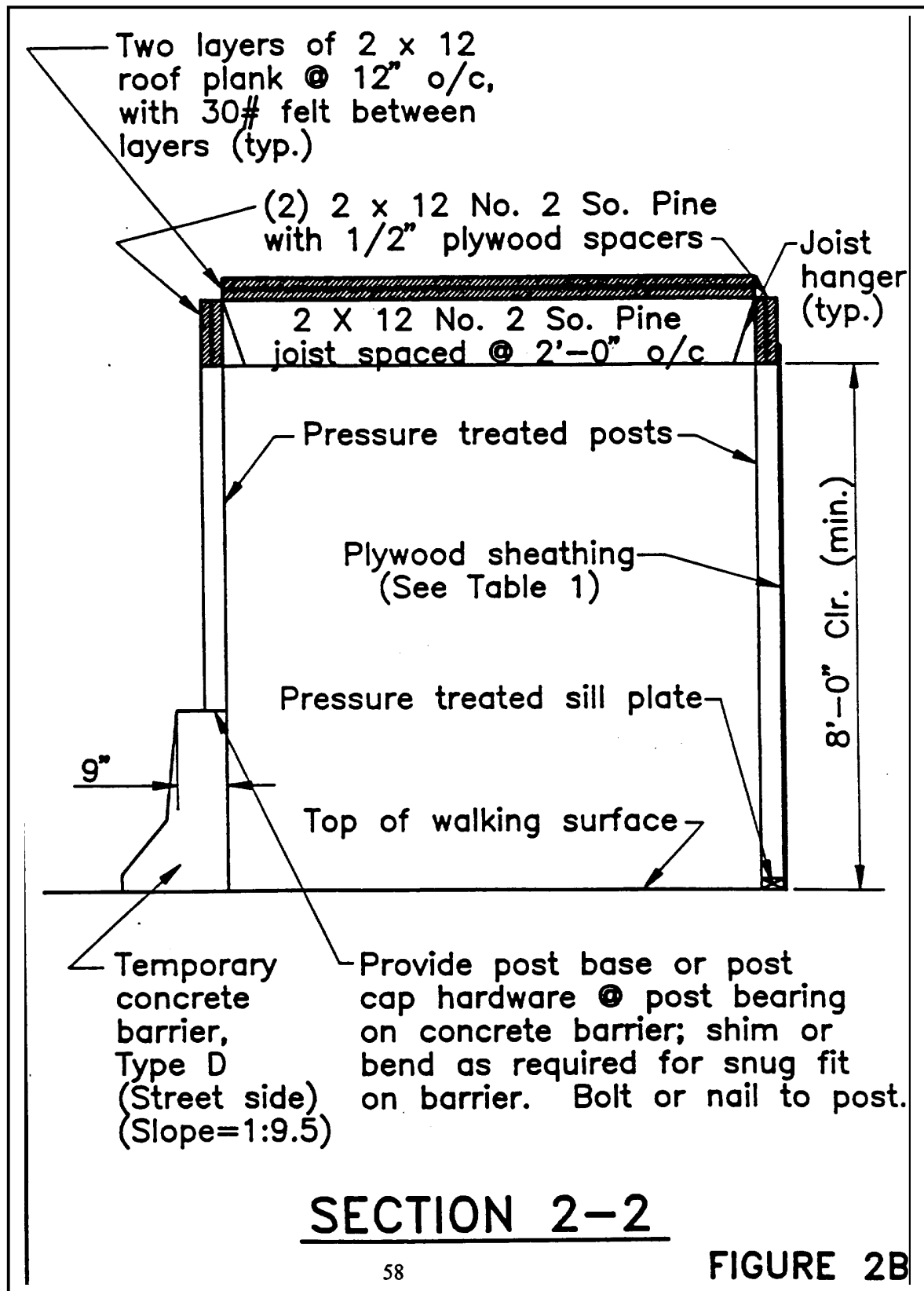


PLAN





## PLAN



**TABLE 1**

**ALLOWABLE PLYWOOD SHEATHING**

<b>DESCRIPTION</b>	<b>REQ. PANEL THICKNESS</b>
APA Rated Sheathing Group 4 Species	19/32" or 5/8"
APA Rated Sheathing Group 1 Species	15/32" or 1/2"
Structural 1 (Always Group 1)	3/8"



## SCHEDULE OF CHARGES – COMPLETE RESTORATION

The following information will be used to estimate the permit charges. The City of Cincinnati reserves the right to adjust the permit charges to reflect the actual scope of work performed.

	<b>Class</b>	<b>Square Yards</b>	<b>Cost</b>
1	Portland Cement Concrete Pavement	4 or less 4.1 – 15 Over 15	\$800.00 \$100.00 \$75.00
2	All block paved streets (covered with asphalt topping)	2 or less 2.1 – 12 Over 12	\$495.00 \$10.00 \$75.00
2A	All block paved streets, which are as determined by the City Engineer to be restored in kind, are treated as a special item.		See Class Special
3	Asphalt Pavement on Concrete Base (Not covered by CLASS 2)	2 or less 2.1 – 12 Over 12	\$495.00 \$105.00 \$75.00
4	Asphalt Pavement	2 or less 2.1 – 12 Over 12	\$495.00 \$105.00 \$75.00
5	Sub-Standard Pavements (Plain Macadam, Gravel, Cinder)	2 or less 2.1 – 12 Over 12	\$495.00 \$105.50 \$52.00
6	Sidewalks, Concrete or Asphaltic Concrete	4 or less 4.1 – 15 Over 15	\$800.00 \$100.00 \$75.00
6A	Driveways, Concrete or Asphaltic Concrete	4 or less 4.1 – 15 Over 15	\$800.00 \$100.00 \$75.00
	Decorative or ornamental sidewalks and driveways are treated as a special item.		See Class Special
7	Concrete Base (with complete resurfacing of a street)	2 or less 2.1 – 12 Over 12	\$495.50 \$105.50 \$52.00
8	Bituminous Aggregate Base (with complete resurfacing of a street)	2 or less 2.1 – 12 Over 12	\$495.50 \$105.50 \$75.00

9	Sod and/or Seeding	2 or less	\$115.00
		2.1 – 12	\$35.00
		Over 12	\$20.00
9A	Sod and/or Seeding Adjacent to main trench	Per Square Yard	\$30.00
10	Standard Temporary Restoration by Permittee		Same Charge as Permanent Restoration
10A	Standard Restoration & Services provided by City Forces or City Restoration Contractor		Price will be time + material
11	Curbing, Concrete	Minimum Charge	\$800.00
	Concrete	10' or less	\$20.00/l.f. additional
	Concrete	Over 10'	\$15.00/l.f. additional
	Curbing, Asphalt	Minimum Charge	\$495.00
	Asphalt	100' or less	\$15.00/l.f. additional
	Asphalt	Over 100'	\$10.00/l.f. additional
12	Asphalt (Surface Only)	2 or less	\$495.50
		2.1 – 12	\$28.00
		Over 12	\$22.00
13	Ditches (Improved or Unimproved) Concrete Ditch	4 or less	\$800.00
		4.1 – 15	\$100.00
		Over 15	\$75.00
	Asphalt Ditch	2 or less	\$495.50
		2.1 – 12	\$105.00
		Over 12	\$75.00
	Unimproved Ditch		\$525.00
14	Road Grinding	Minimum Per Square Yard	\$495.50 \$3.00/s.y.
15	Joint Sealing	Minimum (up to 250 l.f.)	\$400.00
		All area (over 2560 l.f.)	\$0.25/l.f.
16	Seal Coating	Minimum	\$650.00
		All area	\$0.90/s.y.
SPECIAL	City street and street facilities. Restoration and estimate will be determined by the City Engineer, as necessary.		Estimate

## INSPECTION CHARGES

Inspection Charges when Permittee makes restoration. Charges for inspection will be based upon rates in effect at time restoration is performed.

CLASS RESTORATION	MINIMUM UNITS	MINIMUM INSPECTION CHARGE	ADDITIONAL INSPECTION CHARGE
1	2 square yards or less	\$35.00	\$3.00/s.y.
2	2 square yards or less	\$35.00	\$3.00/s.y.
3	2 square yards or less	\$35.00	\$3.00/s.y.
4	2 square yards or less	\$35.00	\$3.00/s.y.
5	2 square yards or less	\$35.00	\$3.00/s.y.
6	2 square yards or less	\$35.00	\$3.00/s.y.
6A	2 square yards or less	\$35.00	\$3.00/s.y.
7	2 square yards or less	\$35.00	\$3.00/s.y.
8	2 square yards or less	\$35.00	\$3.00/s.y.
9	2 square yards or less	\$20.00	\$1.00/s.y.
10	2 square yards or less	\$35.00	\$3.00/s.y.
10A	2 square yards or less	\$35.00	\$3.00/s.y.
11	10 linear feet or less	\$35.00	\$1.50/l.f.
12	2 square yards or less	\$35.00	\$3.00/s.y.
13	2 square yards or less	\$35.00	\$3.00/s.y.
14	10 square yards or less	Cost	
15	500 linear feet or less	\$35.00	
	Over 500 linear feet	\$50.00	
16	1,000 square yards or less	\$85.00	
	Over 1,000 square yards		\$0.10/s.y.

## SPECIAL INSPECTIONS

Charges for special inspection, as required by the City Engineer for facilities constructed and associated activities, will be at the current hourly rate structure for the actual period worked. Cost depends on whether the inspector worked on regular or premium rate and if paid minimum all-out pay and fringe benefits. These charges may be in addition to the other regulated permit fees. The hourly rate structure includes the employee hourly rate, current fringe benefits, and overhead costs.

## OVERTIME WORK ASSIGNMENTS

When the project requires inspection at a time other than regular working hours (7:30 a.m. – 4:30 p.m. Monday through Friday), the charge for inspection shall be at the required overtime rate for the period being worked, using the hourly rate structure. The inspection fee for the project shall be based upon the actual total of overtime hours worked.

## ADMINISTRATIVE PROCESSING CHARGE

\$15.00 each permit

## STREET OPENING FEE

This fee is assessed to compensate for the loss of integrity of street pavements resulting from the cutting, excavating, and patching of the street. This fee is used as partial funding support for the Street Restoration Program, as determined by the City Engineer.

\$10.00 each permit  
+ \$1.00/s.y.

This fee shall be applied ONLY to permits involving opening of street pavement.

## ADDITIONAL CHARGES

All necessary traffic aids and materials, furnished by the Department of Transportation & Engineering, through the permit, shall be charged to the Permittee at the time of completion. These charges may be in addition to the other regulated permit fees.

Time plus material

There will be an additional fee charged per day for each day the work covered by the permit extends beyond the expiration date of the permit. The permit time can be extended only with good cause, as approved by the City Engineer.

\$10.00/day/permit

The fees for permits for work started, without securing the proper permits in advance, will be three (3) times the amounts listed in this schedule of charges, excluding emergency work. The triple fees will only apply to the non-reimbursable portion of the permit fee.

Triple permit fees

## CANCELLATION FEE

Permits cancelled by the applicant after they have been processed and before they are issued to Construction.

\$15.00 each permit  
Admin. Process. Fee

Permits issued to Construction.  
Field verification is required.

\$15.00 each permit  
Admin. Process. Fee

+  
\$30.00 Minimum Inspec. Fee

## NOTES



The Rules and Regulations Governing Work in Streets, Alleys, Sidewalks, and Public Ways of City of Cincinnati, and the manner in which the street is to be restored, as authorized and controlled under Cincinnati Municipal Code, Section 721-35, is hereby approved and in effect on and after December 3, 1993.

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City Engineer

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Director DOTE

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City Manager